# PRIESTS AND LONG LIFE

BY

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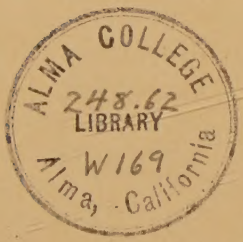


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# PREFACE

THIS book owes its origin to a question asked me by the Editor of *The Homiletic and Pastoral Review,* whether priests live as long as other professional men. I confessed, and did not deny, that I did not know for sure, but that I would try and find out. Confession of ignorance is said to be the beginning of wisdom. In the course of trying to find out the comparative length of priests' and other professional men's lives, I discovered one thing about which there was no doubt, and that was that priests were not living out their expectancy of life—that is, their average age at death was lower than it ought to be considering the circumstances in which they lived. That was interesting.

If life could be lengthened for priests, it would constitute not only a personal advantage for them, but also a benefit to the community. Here is a group of men engaged mainly in work for others, and it would be distinctly advantageous to the community if their life could be prolonged as far as possible. I found that physicians had lengthened their lives by more than three years since the beginning of the twentieth century. What they had done, surely

priests could do, and that would mean a very great deal for themselves and for the Church. A similar prolongation of life for priests would give some seventy-five thousand years of service to the Lord and their fellowmen in this country alone.

A series of articles, then, were written for *The Homiletic and Pastoral Review,* setting forth conditions as they are at the present time, and suggesting just what might be done in order to promote longer life among priests. With certain slight modifications and considerable additions, these articles from the magazine make up the present volume. It is written after more than fifty years of rather intimate friendship with priests, religious and secular, and with a reasonable knowledge of modern scientific medicine. It may prove helpful in benefiting the health and prolonging the life of clergymen. It is entirely with this idea in mind that it is presented to readers in the form in which it may be readily consulted and kept at hand for such re-reading of important passages as may prove worth while for the individual who desires to live out his life to its natural limit. We are all in the hands of Providence, but St. Ignatius' advice was: "Do everything as if all depended on you, then pray as if everything depended on the Lord."

JAMES J. WALSH.

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# CHAPTER I

## Introduction

When the editor of *The Homiletic and Pastoral Review* wrote me some time ago asking me whether I had heard the tradition that priests do not live so long on the average as other professional men, I recalled vaguely having heard some such assertion, though I was very much inclined to think there were no good grounds for it. He aroused my curiosity with regard to the question of the truth of the tradition, and, if true, as to what were the reasons for it. The longer one lives, and above all the more experience one has with ailing people and with the health of mankind, the more one is inclined to doubt traditions which concern health—above all, which concern the question of long life for individuals—unless they can be substantiated by some very definite data. Physicians are flooded with health traditions of all kinds, most of which prove on careful investigation to be without any firm foundation in fact or critically weighed observations. We have to listen to every person who attains old age, when he declares that some particular thing or other is responsible for his longevity, until the air is just full of traditions of

one kind or another in this matter that some people are inclined to take seriously.

Length of life particularly has been the subject of traditions of all kinds. Perhaps nothing shows more clearly how little there probably is in these traditions than the fact that physicians and statisticians have come to doubt rather seriously many of the supposed facts with regard to longevity which used to be rather readily accepted. There are three territories in Europe, for instance, where more people are living who claim to be centenarians than in any other part of the world. These three are the Balkan countries, where they live on sour milk, Spain and Ireland. Professor Metchnikoff accepted the claims of the centenarians in the Balkans, and, since so many of them drank sour milk, recommended sour milk for the rest of the world. In Spain the centenarians occur particularly in the back districts, where food is not very plentiful, and the oldest people according to their own claims occur among the poorest. It was in the poor-houses in Ireland that the very old people used to be found.

One curious fact has come to render these claims very dubious in recent years, and that is that these are the three regions in which people keep very poor track of their ages, and therefore do not know exactly how old they are. Here is a warning with regard to traditions as to long life and comparative longevity that is very interesting to have before us.

Personally I knew no reason why priests should not live as long as, if not longer than, other professional men under corresponding conditions. I had a somewhat vague memory of having seen statistics which indicated that priests lived longer than physicians on the average, and I even felt that I understood the reason for that. There are certain occupational dangers connected with the practice of a physician's profession which add distinctly to the mortality of members of the profession. The physician (in the sense of the regular attendant on the sick, who treats those suffering from ordinary diseases and various non-surgical affections) is liable to contagion from those diseases. As a result, physicians' mortality from typhoid fever, diphtheria, erysipelas and other such infectious diseases is higher as a rule than that of the rest of the community. Physicians' wives will tell you that "father" has a definite tendency to bringing infections home to his children also. The surgeon, in contradistinction to the physician, suffers from various infections through operation wounds or abrasions, which may be contaminated by purulent material, and these increase the mortality of surgeons to a noteworthy extent.

In spite of his acknowledged advantage over the physician in the matter of mortality from the infections, the tradition still continues to be passed on that priests are shorter-lived on the average than other professional men of similar status in life. When I

inquired of the insurance companies, they had no definite data on the subject, though one of the expert statisticians confessed that he had heard of the higher mortality among priests, and thought that he knew where the tradition had its origin. There is an old statistical study made by the Registrar General of England and Wales something over fifty years ago with regard to mortality according to occupation. In that study Catholic priests showed a somewhat higher mortality than Protestant ministers, although the mortality of priests was considerably below the average of the population up to the age of fifty-five. In the age period fifty-five to sixty-four inclusive, the mortality of priests was distinctly above this—that is, more of them died. In writing about the matter, the statistician added that "it should be pointed out that the number of priests in England and Wales at that time was so small as to make the figures very unreliable." Indeed, as we know from conditions as they were in England immediately after the middle of the nineteenth century and the restoration of the Catholic hierarchy in England, the number of priests in the country was so small as to make any conclusion with regard to mortality among them, applicable to priests generally, quite out of the question. Wales can scarcely be counted at all in the matter, as there were so few priests there.

Besides, as they were collected over fifty years ago and thus long before modern sanitary regulations

had been put into effect and the contagious diseases limited as much as they have been in recent years, these statistics mean very little for modern times. The difference in personal hygiene alone makes a very great difference in the mortality. After all, in New York City seventy-five years ago the mortality rate was nearly sixty per thousand per year. It is at the present time scarcely ten per thousand per year. It is only one-sixth as dangerous to live in New York City as it used to be. While this factor would probably affect all nearly equally, it is easy to understand that, when the epidemic diseases such as cholera and typhus fever were rife and other contagious affections common, priests who considered it their duty to go to the bedside of sufferers from these diseases were likely to suffer from them much more than their Protestant brethren in the ministry, who were never or rarely sent for under such circumstances; and besides, the Anglican clergy who represented such a very large portion of the ministers of the Gospel in England had mainly to do with the rich rather than with the poor—that is, they ministered rather to the class among whom the severer contagious diseases were much less common.

Some German and French statistics seem to indicate that the mortality of priests is lower than the average of the community. In his *Handbuch der medizinischen Statistik* (1906, p. 495), Prinzing gives death rates by ages for Catholic priests cover-

ing the years 1865 to 1895, and compares them with those of all males in the same district for certain years of that period. According to these statistics, the mortality of priests is below the average of the population up to fifty-five, but above that age it is higher. It continues higher up to the age of seventy-five, when it is again below the average. On the whole, however, priests live longer on the average than the general community according to the statistics.

In 1912, Jacques Bertillon, the well-known French student of demography and statistics of population (of Bertillon measurements fame and the introducer of finger printing), read a paper before the International Congress on Hygiene held in Washington, D. C., "On Mortality and the Causes of Death According to Occupations." This was published in the *Transactions* of the Congress for that year, and contains some very interesting material. He confesses at the beginning that the problem of the death rate according to occupation is one of the most difficult that the statistician has to deal with, and that it bristles with all sorts of possibilities of fallacy. Of course, whenever in any occupation there are a large number of the old, the death rate will be high; on the other hand, where there are many young people, it will be comparatively low.

Bertillon has taken the various diseases and pointed out the mortality from them according to the

various occupations. Tuberculosis, for instance, always carries off a considerably larger proportion of those engaged in indoor occupations than in outdoor occupations. Among clergymen the death rate from tuberculosis is lower than the average, as is also the case among teachers. These two vocations permit one to get out for a quiet airing and gentle exercise at regular intervals, and this is favorable for the development of resistive vitality against the tubercle bacillus. In so far as liver diseases are concerned, the clergyman (and by this term Bertillon would mean mainly the priest, for his statistics are more largely concerned with France than with any other part of the world, though some of his statistics come from England and Switzerland, as well as Vienna and Leipzig) has a lower death rate than that of the other professional men. Doctors have about an average amount of liver disease, but the lawyers have a much higher mortality from the affection. Liver diseases are very often connected with overindulgence in strong spirituous liquors, though the etiological connection is not as direct as used to be thought. Some very hard drinkers escape cirrhosis of the liver entirely, even though they indulge over a long period of years, while a certain number of very abstemious men suffer from what is usually thought of as alcoholic sclerosis or cirrhosis—that is, hardening of the liver.

In Bertillon's statistics, priests suffer about as fre-

quently from Bright's disease (of the kidneys) as the average of the population of corresponding years. As regards diabetes, the mortality among doctors and lawyers is higher than the average of the population. For clergymen and druggists, the mortality rate in diabetes is lower than that of the average population. According to recent researches, diabetes is very largely dependent on overeating, and especially of starches and sweets. There is a definite relationship between obesity and diabetes in a number of cases. Jews are much more liable to the disease than the rest of the population, because they indulge more in the pleasures of the table. They are prone particularly to introduce sweets of various kinds, jellies and preserves, into the meat courses, and rather specialize on desserts. The general death rate from diabetes has increased very much in recent years. The incidence of the disease has increased still more, though the discovery of insulin (which is not a cure but a treatment for the disease that affords great relief to many symptoms) has done much to lessen the mortality. There is an impression gaining around now, that priests suffer more from diabetes than was the case a generation ago, because they have, in the cities at least, changed from a comparatively simple diet to somewhat more elaborate eating. However, that impression needs confirmation by definite statistics before acceptance.

There are other factors that lessen the mortality

rate among priests, as is noted by Bertillon. Suicide is very uncommon among them, and the suicide rate has been going up so much in recent years among the rest of the population as to make it a notable factor in mortality.[1] It is most frequent among soldiers, and especially officers who are accustomed to fire-arms, and have these near them at moments of depression. It is only too frequent among physicians, who usually choose the poison method as the means are so ready at hand. Physicians and nurses suffer much more from the narcotic habit than other classes of population, because drugs are so readily available, and this sometimes leads to depression that may cause the taking of one's own life. The death rate among priests from paresis and other luetic complications and sequelæ is quite low. At the present time these diseases have become important factors in mortality tables. It is said that nearly one in six of those

[1] Reverend Father Frenay, in his book "The Suicide Problem in the United States" (Boston, 1927), brings out the fact that, while the mortality in this country from disease is generally being reduced, that from suicide is increasing: "While our doctors are curtailing the list of preventable and premature deaths, the number of those who take their own lives has increased." The average age at which suicide takes place is constantly coming down. The fact that the suicide percentage for clergymen is the smallest (if there is any at all) is the proof that religion has a great deal to do with preventing suicide, and that it is the absence of religion, especially among young folks, that has brought about the great increase of suicide and its occurrence at ever earlier years in recent times. Father Frenay's study of our suicide problem makes it very clear that suicide can probably be reduced, that it is preventable to a certain extent, and that this is largely a question of the success of clergymen in maintaining the religious faith of growing young folks.

who die in our insane asylums are sufferers from these paraluetic affections. The lower incidence of the luetic diseases means much in France, particularly, in favor of lower mortality for priests, and consequently greater longevity. Even from this brief excerpt from Bertillon it is easy to see how many factors enter into the question of the comparative longevity of priests.

Almost needless to say, these statistics and considerations as to the frequency of certain diseases in certain occupations do not afford a satisfactory answer to the question whether priests live longer or shorter lives on the average than members of other professions, though they furnish some hints as to the answer. Certainly, anyone who knows a good many priests is likely to feel that they are not shorter-lived than professional men of similar status in the world around them. Most of us know a good many priests who are above sixty-five years of age. Indeed, there are so many patriarchs among the priests—men who have lived well beyond the Psalmist's limit of three score and ten in full possession of their faculties—that those of us who know priests best, would be more than a little inclined to think that the average length of life among them is higher rather than lower in comparison to the rest of the community. Anyone who has seen curates in Ireland spend thirty-five or forty years as priests before a place as pastor could be found for them, would be sure to have the feeling

that at least in Ireland longevity was well maintained. Some of the religious orders have so many old men among them that they represent a real problem. Their presence is rightly considered a blessing and an incentive to the younger men to do the best that is in them, because of the traditions of zeal in the ministry which the old men exemplify when they had their health and strength. And yet I have known superiors of religious orders who said that they wished they could make an arrangement with the Lord to take their subjects away in chronological order.

One good priest friend said to me that he felt sure that priests were living longer than formerly, because the celebration of twenty-fifth anniversaries was rather uncommon in these early days of the priests, and now they have become so common that some of the jubilarians almost hesitate to observe them. When I suggested this to another priest friend, he said that undoubtedly one of the reasons for this was that in the older time the twenty-fifth anniversary was not celebrated so commonly as it is at present, and many an older priest in his recollection had let his twenty-fifth anniversary slip by without making any note of it other than perhaps the wearing of the best vestments at Mass in the morning and having a little better dinner for the household and perhaps for a neighboring pastor or two. Impressions of this kind (like those with regard to the weather and our

changing climate and so forth) are prone to be rather deceptive. It is important to follow out all clues that would indicate any lengthening of life with the development of hygiene and sanitation in recent years, and personally I am reasonably sure that priests live longer lives now as the result of this than they did even in the latter part of the nineteenth century.

The whole question as to the length of life of priests remains open in spite of whatever contributions to the subject may have been made. It is a subject, however, of great importance upon which some definite information would be worth while. The only thing to do under the circumstances was to try to obtain some statistics that might be significant for our day and under present conditions of sanitary science and social and personal hygiene. I, therefore, sent a series of letters to the chancellors of the various dioceses and archdioceses of the country, and received answers from a number of them. Altogether we were able to collect the statistics at the age of death of over 1,000 American priests during the twentieth century. Those of the religious are segregated from the secular clergy. Apparently, on the average the religious live somewhat more than a year longer than the secular priest

According to the chancery records as they have been made available to us, though we have scarcely more than one-half of the archdioceses and dioceses

in hand, the average age of priests at death is slightly more than fifty-eight years. Apparently, the length of life has been increasing during the past few years, though the favorable factors of sanitation and hygiene, which have done so much to lengthen life during recent times, are somewhat neutralized by the number of unfortunate fatal accidents in automobiles and other modes of travel that have taken place among priests during the past dozen years.

This average length of life for priests corresponds very nearly to what the average length of life was twenty-five years ago among physicians, as reported in the *Journal of the American Medical Association.* The average age at the time of death of 650 physicians reported in the *Journal* during the year 1900 was 58.35, that is a little more than fifty-eight years and four months. Longevity has increased among physicians, however, during these twenty-five years as the result of their knowing and following sanitary regulations and maintaining personal hygiene. The result is that the average age at the time of death of 2,370 physicians reported in the *Journal* during the year 1925, was 62.12, that is to say physicians now live to the average age of about sixty-two years, one month and two weeks.[2]

[2] The average age at death for physicians has increased slightly during the last twenty-five years at the end of each five-year period, as reported in the *Journal of the American Medical Association.* In 1905, it was sixty and one-third years; in 1910, nearly sixty and one-half years; in 1915, it remained about unchanged; in 1920, it was sixty-one and one-tenth years. This had risen, as we

The comparison is not an altogether fair one, because we have not sufficiently complete statistics to make comparative results significant. It is suggestive, however, and would inevitably produce the feeling that, if priests took advantage of our modern developments in hygiene and sanitary science, they would very probably live longer than they do at the present time. Our Boards of Health do not hesitate to say that health is a purchasable commodity, and that longer life than is at present enjoyed on the average can be secured by anyone who wants to pay the price for it. This price is a moral and not a pecuniary one. It consists in regulating life in such a way that dangers of ill health shall be avoided, resistive vitality increased, and immunity to disease maintained.

We have come to realize very well now that the principal danger to life is infection from the little living things we call microbes or bacteria. These minute vegetable entities dispute with us sometimes the possession of the physically living material that we call our bodies. If we have greater resistive vitality than they have, and are able to keep them from maintaining themselves in our domain of the material

have said in the text, to more than sixty-two and one-tenth years in 1925. These figures are for well above 2,000 physicians for the years in question, so that the statistics have a definite meaning as regards length of life. The *Journal* reports ages only in years completed, so that a man who was forty years and ten months old when he died, would appear as forty years old, and so would a man forty years and two months old.

world, we survive. If they can show greater resistive vitality than we possess, however, nature accords to them the privilege of ruling the matter that we have considered belongs to us. The result is what we call disease and death. Curiously enough, after we have conquered a particular kind of microbe, we are not as a rule subjected to the necessity of having to combat with it again. Second attacks of such diseases as smallpox, typhoid fever, measles and a number of other affections, called the "children's diseases" (though they are perfectly capable of attacking adults who have not suffered from them before), are comparatively rare. We have won our victory, and do not have to repeat it.

In order to resist disease, however, we have to maintain a firm hold on our material elements, and be able to dispute their possession with other living things that may come along. It is because of our greater knowledge as to how to do this, that the average length of life has increased so much in recent years. When I went to school as a boy, it was the custom to say that the length of a generation was about thirty-three years.[3] Now the length of a gen-

[3] The average age of mankind (that is, the length of a generation) continued popularly to be set down as thirty-three years for some considerable time after that age limit had been passed through the good effect of modern sanitary science. The clinging to that special figure was partly due to the fact that men like to cling to a rounded number like thirty-three, but then there was besides the feeling that, that being the age of our Lord at death, the average age of mankind would remain at about that point. There was no reason for that, however, as we shall show. It was something like

eration has increased until it is computed to be about fifty-five years. That is to say, the average length of life has increased about twenty-two years. The main reason for this has been the lessening of the mortality among infants, for in our cities nearly one in five of the children born used to succumb before the end of their second summer, and almost as many more used to be victims of the various contagious diseases and the perils of early life before the age of five. Besides, typhus fever, Asiatic cholera, bubonic plague, yellow fever and smallpox, which were wont to be extremely important factors in the death rate, have now almost entirely disappeared. They used to carry off the vigorous adults in their twenties, and these now survive to live on the average well beyond fifty.

As a result of these improvements in sanitation, the expectancy of life at the various younger years has increased rather markedly. For instance, at the age of twenty-five life expectancy is nearly twice as great now as it used to be two generations ago. I am told by life insurance experts that the expectancy of life now at twenty-five is nearly forty-two years. This is of course for selected lives that are insurable at that time. It is on such figures that the insurance

the other tradition that no Pope could hope to outlive the years of Peter, and none of them actually did until modern sanitary science came to make life safer than it used to be for the old as well as the young. Since then, however, we have had several examples of Popes who have surpassed Peter's years on the throne of the fisherman.

companies base their calculations as regards premiums, leaving a proper margin for safety and profit; and, as the insurance companies are constantly making money and have been, it is perfectly clear that their figures are dependable.

The average age of priests at ordination is a little under twenty-five years. Most of the men who are ordained have insurable lives—that is to say, they would, if they offered themselves, pass a life insurance examination and be given a policy. As a rule, young men who are suffering from any serious disease are not ordained, though occasionally sufferers from consumption are granted the desire of their hearts after long years of preparation, even though they are known to be suffering from rather severe pulmonary tuberculosis. But even this factor is comparatively of such slight significance that it does not modify the statistics materially. All of us know young priests who were ordained with the thought that surely they would not have long to live, and who far outlived many of those who were in excellent health at the time. "Tuberculosis takes only the quitters" (that is, those who give up), and sometimes Holy Orders seems to have the power to rouse latent vitality and enable young priests to throw off their disease more effectively than would otherwise be the case.

Taking the normal expectancy of life as a basis of calculation, priests very probably ought to live on the

average up to the age of sixty-five years, perhaps even somewhat beyond that. I am taking round numbers, because we would need a much more careful survey of the whole field to attain any absolute accuracy. We have enough in hand, however, to enable us to judge of the question as to whether priests live as long as the normal expectancy of human life would indicate or demand. I have deliberately deducted something more than one year from the ordinary expectancy of life in order to be sure that we shall not exaggerate the length of life that priests ought to live.

Even with this allowance, it would seem that priests might be expected to live on the average at least five years more than they do. In some of the larger dioceses of the temperate part of the country, where it is neither very cold in the winter time nor extremely hot in the summer time, the average length of a priest's life at the present time is well above sixty-one years. This is notably true in such Archdioceses as Dubuque and Cincinnati. The smaller Diocese of Des Moines actually has an average age at death among its priests during the twentieth century of sixty-five years. There are special reasons for that high expectancy of life, but it demonstrates that the ideal of expectancy of life as sixty-five is not a dream, but probably a reality that could be secured with proper effort.

That is the favorable side of the picture disclosed

by the statistics. Some of our largest archdioceses, however, have an average age at death among their priests of distinctly below sixty—a few of them two or even three years under that figure. For special reasons that have made them the subject of unfavorable selection, some of the smaller dioceses have an average death among priests of somewhat under fifty-five years. A very few of them actually present an average around fifty or even below it. The lack of statistics for all the dioceses and archdioceses, however, makes it futile to attempt to draw any definite conclusions from the statistics at hand. It would surely seem to be well worth while to have a careful special study of this subject made in order to determine whether priests are living out what may be considered their normal expectancy of life, and whether they might perhaps improve the situation.

At the present time there seems to be rather definite reason to think that they are not doing so, and, as a result, the suggestion as to the discussion of some of the probable reasons why they and the Church here in America are losing the advantage of precious years of the ministry is surely not impertinent.

## CHAPTER II

### Heredity, Exercise and Weight

After discussing in the Introduction the question of the average length of life of priests here in America during the twentieth century, we were forced to the conclusion that they were not living out their expectancy of life to the extent that was both desirable and possible. The average age at death of priests here in America is somewhat under sixty years, while the expectancy of life of persons in insurable good health—which is commonly the case with priests when they are ordained at an average age a little under twenty-five—is somewhat more than forty years. The average age of priests at death in our day of improved sanitation and developed personal hygiene, should be about sixty-five years. Priests are missing on the average then five precious years of life. To add another five years of fruitful ministry to the existence of American priests, would be a consummation devoutly to be wished. According to the report of the *Journal of the American Medical Association,* as we saw in the preceding chapter, physicians have actually length-

ened their lives during the past quarter of a century an average of nearly four years to over sixty-two years of age. There seems no reason why priests should not do the same thing, and perhaps even extend their lives a year or two more than that.

It was suggested, then, that I should discuss some of the reasons why probably priests do not live longer at the present time, and above all why they are not living out their normal expectancy of life, which apparently they fail to attain by at least five years. Undoubtedly, the idea also was that, perhaps in this discussion of the reasons for lack of longevity among priests, I might present some of the principles derived from present-day sanitation and hygiene, by which the average life of humanity has been very much lengthened on the average—over twenty years during the past generation. Most educated people know these principles rather well, but it is a question of applying them. Usually the exercise of will power is needed in order to form habits of life in accordance with sanitary and hygienic principles. Most of us follow a policy of what the French call *laissez aller* in this matter, and we just let things go without thinking about them

In venturing to give what I think are the reasons for the tendency among priests not to live out their expectancy of life, I speak with no little hesitation, because it is still as true as it ever was that the individual counts for more than his environment or the

conditions in which he lives. A favorite expression of Professor Osler, quoted from old Dr. Parry of Bath, was: "It is much more important to know what sort of patient has a disease than what sort of disease a patient has." Not that I would suggest, as a humorist once did, that life is an incurable disease, but that all questions with regard to the health of humanity must be considered from the standpoint of the individual. Old Dr. Parry's expression can probably be traced back to Hippocrates two thousand five hundred years ago, but it is just as true today as it ever was. Otherwise Professor Osler, who was at the time of his death the greatest teacher of medicine in the English-speaking world and perhaps the greatest teacher of medicine anywhere in the world at that time, would not have used it. With all our modern advance in diagnosis and in treatment, the individual still counts for more than the disease which he may happen to have.

It is not difficult for even what physicians are sometimes prone to call the lay mind (in contradistinction to the medical mind) to understand the truth of this expression. Here is an illustration that may clarify it some. When a man comes down with pneumonia, the physician wants to know above all what he takes into his pneumonia with him. If he had in his growing years acute articular rheumatism[1],

[1] Not merely muscle pains, but rheumatism accompanied by fever and red and swollen joints—the ailment which sometimes masquerades under the name of "growing pains."

and has as a consequence of this affection a set of crippled heart valves, he will probably die on the fifth or sixth day, because his heart will give out in the effort to keep up circulation through a solidified lung. The heart will have to labor under the added difficulty of its muscular substance being irritated by the presence of toxins in the blood and the resultant insufficiency of oxygenation of muscle tissues because of his crippled respiratory apparatus. If as a child the pneumonia patient suffered from scarlet fever, and as a complication developed glomerular nephritis with some consequent degeneration of the kidneys (Bright's Disease), he will probably die on the seventh or eighth day from toxemia, because his kidneys are not capable of eliminating the bacterial products which find their way into the blood. If the pneumonia patient suffered from active tuberculosis of the lungs in his younger years and this has been quiescent for some time, his pneumonia will probably not end by definite crisis as is usual, but will resolve by lysis taking a month to do so; and his pulmonary tuberculosis will probably develop again, and he will have to take a good deal of care of himself for several succeeding years, or else there is serious danger of death from consumption.

It is easy to see in these cases how much more important the patient is than his disease. With regard to longevity that is quite as true. The all-important question preliminary to any opinion in the matter is:

"What did you take into life with you?" And then secondly: "What happened to you during your younger, growing years?" If you had a series of rather serious affections (some of them with perhaps more or less latent complications in heart or lungs or other organs), you are probably handicapped for life, and long life will be more difficult to attain. It may be quite as serious an accident to be run into by a bacillus, as it is to be run into by a trolley car or an automobile. Indeed it is often worse to come into collision with a microbe, for it may lead to more serious damages to the tissues, and recovery will not be so complete. Such crippling will shorten life almost inevitably.

Even more important, however, whenever longevity is under consideration, is the question whether an individual comes from a long-lived family or not. There are many more chances of a man's living to be seventy-five, when his father and mother before him reached that age or more, than there is for a man whose parents have died in middle age or earlier. And yet the deaths of parents may have been merely accidental (due to an unfortunate contact with a bacillus or some conventional injury), and may have had nothing to do with any running out of the vital force precociously, so that their children may have the full benefit of long-lived stock in their ancestry in spite of the short lives of their parents.

On the other hand, if a man comes from a notably

short-lived stock, from a family whose members are prone to have apoplexy early in life or to suffer from degenerative kidney conditions shortly after middle life, or if he has an hereditary tendency to the deterioration of arteries before their time, he has comparatively little chance for long life. A number of people apparently have by inheritance a set of arterial tissues that are not quite capable of standing the wear and tear of modern high-pressure existence, and, as a result of this defect, are apt to age faster than the rest of the body. If the possessors of these inherited tendencies recognize the fact in time, and take due precautions against aggravating them, they can probably attain a much greater age than would otherwise be possible.

In this matter, moreover, it must not be forgotten that each individual human being is a composite of two parents, and longevity as well as most of the qualities that make for good health are dominant traits in the organism, so that unfavorable qualities have a tendency to disappear. As the biologists say, we all of us have a new, if not always a square deal. Longevity is particularly a dominant trait, and, if either of the grandparents or parents had it, it is likely to occur in three out of four of the descendants, in spite of the fact that two or three of the other immediate ancestors were short-lived. I have known men, sometimes even priests, who took it rather severely to heart that one of their immediate

ancestors exhibited some traits of early degeneration of important organs or arteries, and they concluded that they were surely going to be victims of the same mode of premature degeneration. Many of the factors that shorten life are acquired, however, rather than inherited. Working in lead, for instance, will do more to produce early degeneration of kidneys and arteries than nearly anything else. Overindulgence in malt liquors will produce a tendency to gout that is apparently much more serious than the hereditary element in the disease. It is the old question of heredity and environment, but neither should be exaggerated.

There are certain hereditary defects that may serve to prevent long life. While disease is never inherited, though sometimes it seems to be, defects are the subject of inheritance. There are certain definite tendencies to short-livedness in families that may be quite as hereditary as the corresponding tendency to longevity which is noted in so many families. As a rule, shorter men are more likely to live long than taller ones. Giants—that is, people who are much beyond the average height—are notoriously short-livers. On the other hand, dwarfs are not prone to be long-lived, but apparently represent another instance of those wide variations from the average of humanity, which arise from or imply a certain lack of normal vitality. Within normal limits, men below the average in size are longer-lived as a rule than

those above the average. The philosophic formula has been suggested that, in the shorter men, their souls have to inform less matter, and they gain an extension in time in direct ratio to their lack of extension in size. Men who are overweight for their size are short-lived in proportion to the amount of the overweight. "A lean horse for a long race," is, as we shall see, a maxim that means very much as applied to men—and women—in relation to longevity. Obesity does more to shorten life (as the insurance companies have found to their loss) than any other single factor except serious disease.

Supposing that the hereditary tendencies are reasonably good in the matter of longevity, and that there has been a favorable early environment in life so that there are no serious sequelæ from the infectious diseases (the so-called children's diseases) as an inheritance from the early years, there are two things which more than any others conduce to long life. These are: first, exercise in the open air, and, secondly, proper regulation of the food intake. Early in life these should be made the subject of definite habits so that there need not be a constantly renewed solicitude about them. According to the old proverb, "habit is second nature"; but a distinguished modern biologist has suggested that habits may prove ten times as strong as nature. A great deal depends on the habits that we form. Ordinarily, the word "habit" is associated rather with the idea of bad

habits, but good habits help as much as bad habits hamper or disturb. About the time when a man settles down to his occupation in life, he should form the habits that will continue with him and help him to maintain his health. In both these matters of exercise and eating, it is important that good habits should be formed early and maintained firmly.

For long life a man must be active; that is to say, he must exercise every muscle in his body to a definite extent every day. This is undoubtedly one of the most important factors that has a very definite effect in producing the longer and shorter lives of priests. The exercise must not be violent after middle life, but there should be a considerable amount of it. The usual rule given by those who have made special studies in the subject, is that the daily exercise should be the equivalent of walking four to five miles a day. Old Dr. Parkes Weber of London, who himself lived to be ninety-five, formulated five miles as the minimum amount of daily exercise needed. He used to take seven miles, and carried a pedometer with him which noted the miles that he walked. Any week that he walked less than fifty miles, he gave himself a black mark. He was a very distinguished medical practitioner in London at the end of the nineteenth century, and he made it a rule to walk to his practice. He continued to see patients until he was eighty-five, but he continued his daily seven-mile

walks after that, and lived to be ninety-five, when I think he died of pneumonia, just as any man of fifty-five or sixty might have done.

Here in America, we had another striking example of longevity associated with thoroughly active mental life among physicians in the person of Dr. Thomas Addis Emmet, the grandson of Thomas Addis Emmet, the distinguished American lawyer and brother of Robert Emmet, the Irish patriot. Dr. Emmet paralleled Dr. Parkes Weber in the habit of walking to his patients and his hospital work, and he lived almost as long as his London colleague. Dr. Emmet never kept a carriage. In middle life he had a practice of over $50,000 a year at a time when such emoluments for a physician were rare indeed, and when they involved much more physical exertion for their acquisition than is the rule now, since fees were not so high and individual very large fees were ever so much rarer than in our time. Dr. Emmet was a distinguished member of the profession, a great original worker, and not merely a money-maker. With Dr. Marion Sims, Dr. Emmet laid the foundation of the specialty of gynecology, which we owe entirely to American genius and progressiveness. Dr. Emmet was, besides, one of the founders of the New York Woman's Hospital, the first hospital for the special treatment of women founded in the world.

This accomplished wonderful work for the relief of the ills of womankind, and opened up an entirely new vista in the possibilities of happiness for women.

Walking briskly every day to practice and hospital, Dr. Emmet lived to be ninety-three years of age in the full possession of his faculties, actually writing three or more books during the last ten years of his life. He always felt that he would have lived much longer (probably to be one hundred) if only, when he was past seventy, he had not fallen and broken a leg badly in an out-of-the-way district in Ireland, where he had to wait for several days before a skilled physician could be secured. Owing to conditions his leg was badly set—this was before the days of the X-rays—and had to be rebroken. As a result he was very lame after his seventieth year. This kept him from taking as much exercise as would otherwise have been possible—exercise which he felt sure would have lengthened his life. Emmet was an intensely hard worker, especially in the busy years of middle life, and sometimes continued his writings far into the night. He had invented a special bench without arms or back, and, as there was a tendency for him to fall asleep over his work because he had been so active during the day, he would sit on this bench; if he went to sleep, he would fall off and hurt himself, and this would wake him up to go on with his work. After a while he got so that he would not

fall off, but would catch himself on the way down, but the effort required always awakened him very efficaciously.

Such intense devotion to work night and day usually provokes the thought that a man is burning the candle at both ends, and surely cannot live long. They live long, however, if they only take exercise enough for their bodies in the open air. There are some people who seem to think that physical exercise gradually exhausts the natural forces, and that, the more exercise a man takes, the sooner he wears out. So far is this from being true that exactly the opposite is the fact. The ordinary normal individual develops a certain amount of energy every day from what he eats. We have no accumulators anywhere in the body in which this energy can be stored, after we are up to weight. Nature makes an effort to store up some of our surplus energy-producing material in the shape of fat that may be used in times of special need, but after a while this becomes a burden and not a help. If the day's energy is not used up in physical activity, it is likely to be used by a sort of short-circuiting within the body, and this leads to such symptoms as insomnia, nervousness, and then to disturbance of various internal organs. Material is not presented to them in the form most suitable for their elaboration on account of the lack of proper oxidation consequent upon breathing deeply and

getting rid of muscular waste material—results which come naturally when there is sufficient exercise in the open.

It is not easy to take as much exercise as is thus indicated, and it requires a good deal of will power and no little determination of character to do it. It is extremely important, however, that it should be done. There is a maxim current among specialists in tuberculosis that "tuberculosis takes only the quitters"—that is, those who are not willing to do the things that must be done for their return to health. This is what is true of long life. There must be the effective will to live, and the consequent regulation of the habits particularly of exercise and eating. If you are not possessed of the will to do what should be done in these regards, then you must not expect that you will enjoy the fruits that would come from proper regulation of life. I have dwelt on this particularly in my volume on "Health Through Will Power." It is not so much a question of the cure of disease through will power as it is of the maintenance of health in that way. People often say that it is wonderful how the mind cures the body, but what is really wonderful is the way the mind produces symptoms in the body, and the will power is not exerted enough to throw them off. When the mind produces the symptoms, only the will can bring about the cure of them, and that must be done by definite application of the force that is within us.

After lack of exercise, the most important factor for shortening life is overeating. The instinct for food is so illusive that it is comparatively easy either to undereat or overeat. Fortunately, children (even infants) know exactly when they have had enough, but, as we grow older, between the attractiveness of viands and eating inhibitions that come from listening to well-meant but fallacious advice, we may either overeat or undereat. There is just one sure way to detect whether one is eating enough, or neither too much nor too little. That fortunately is very simple. It consists in keeping track of your weight. If you are over-weight for your height, you are surely overeating, as a rule. The exceptions are very rare, though they exist. Those who are under-weight are probably always undereating. This is particularly true, if they are young. Overweight is a serious detriment to life extension, and in recent years the insurance companies have been very emphatic in their depreciation of the risks of policy holders or prospective policy holders who are over-weight. They take them only after "weighting" their polices correspondingly.

They have a very good reason for that in the lessened expectancy of life among those who are much above normal weight for height. The great majority of men who live long, are under-weight for height rather than over-weight. There is a certain amount of danger in being under-weight when one is young

(that is, under twenty-five years of age), because this usually means lack of resistive vitality against the various affections which are so common at that time, and which so often prove crippling to large organs through their complications or sequelæ after they have developed. It is particularly dangerous to be exposed to infection by the tubercle bacilli, if one is under-weight when one is young, because there is comparatively little immunity against the disease under those circumstances. On the other hand, to be overweight in the later years of life, or any time after middle life, probably always detracts from vitality, and impairs even a strong family tendency to longevity just in proportion to the amount of over-weight that there is.

Very probably the most important reason for this is, as can be readily understood, that it is ever so much more difficult and requires more effort of the will as well as of the tissues for the weighty man to take exercise than the lighter one. Daily exercise equivalent to about four or five miles of walking is an extremely important element for keeping vitality up to its maximum. There is likely to be a vicious circle formed of ever-increasing weight and ever-decreasing exercise, the one reacting on the other until the amount of exercise indulged in may be very limited. It is surprising how little exercise some men seem to think they can get along with after middle life and yet maintain their health. They usually pay rather

dearly for their delusions in this matter, however, through the loss of years of life that might have been employed to very good advantage in the furtherance of their careers, if only they had taken time off to allow themselves the proper amount of physical exercise. It was James Jeffrey Roche, I think, who once said: "Every minute saved from your meals is a dollar in your doctor's pocket later on in life." Every hour devoted to sedentary life when you ought to be taking exercise, may represent as many days off existence later on. Nature is a very stern creditor with regard to the payment of such debts, and payment on them is sometimes demanded very abruptly and peremptorily, and there is no discount and no moratorium allowed.

Family peculiarities and hereditary tendencies mean not a little and sometimes very much in the matter of weight, and, therefore, no absolutely definite rule with regard to it can be given. There is a good working rule, however, that has been suggested as a warning in the matter of the accumulation of fat. That is formulated in the expression that it is a disgrace especially before middle life or any time before fifty to have the waist line exceed that of the chest in measurement. The waist line should be at least an inch or two smaller than the chest measure and should under no circumstances and at no age be allowed to exceed the chest measure by more than an inch or two. When they begin to approach each

other, that is a danger signal. "Girth control," as it has been called, is an extremely important element for health, and above all for longevity. When the girth gets beyond control, the individual loses his general vitality; above all, his heat regulation fails to a considerable extent, he retains more heat because he has a blanket of fat, and proper heat dissemination constitutes one of the very important factors in the disposal of nutritious material and the maintenance of vital activity. Besides, the fat man will not exercise as much as he ought to, and a vicious circle of lowered exercise and further increase in weight is formed. The presence of considerable fat within the abdomen leads to interference with the functions of large and important organs, and its formation also disturbs the activity of the heart.

Very probably as good a simple rule for the estimation of normal weight for height is that founded on the practice of the United States Government in the taking of recruits before the late war. Whether this practice is continued at the present time or not, I do not know. Those who were under two pounds to the inch of height were refused admission to the service, but so were those who were over three pounds to the inch. Weight varies somewhat with age, but at thirty-five a man ought to weigh nearly but not quite two pounds and a half to the inch. He ought to be sure to keep from weighing more than

two pounds and a half to the inch, but should not be much more than ten per cent below that. This represents the weight in the ordinary clothes, though without an overcoat. In summer a man's clothes will weigh five to seven pounds, and in winter nearly ten pounds. A man of five feet eight (that is sixty-eight inches) ought to weigh about 160 pounds, but not above 170 and surely not under 150. Of course, as has been said, there are family traits in the matter which must be taken into account, but this a good general rule. Many of the weight tables for height are a little under this, but it is probable that the difference given here in favor of a slight increase in weight is a good one.

Weight is dependent on two factors in life—the amount eaten and the amount of exercise taken or the amount of work done. For priests the more important of these two factors so far as weight is concerned is eating, because, situated as they are and with dignity to maintain, they cannot indulge as a rule in anything like violent exercise, and the temptation is gradually to reduce the amount of activity. In our day, when the omnipresent automobile and other modes of transportation take away the incentive to walk even for comparatively short distances, the question of the necessary limitation of food intake becomes very important. To walk a mile on an errand of any kind now seems almost out of the question for a great

many people, and the result is a failure to burn up food material that is eaten, unless care is exercised in the proper selection and limitation of diet. This question of eating is, however, a very important one, and must be postponed for discussion in the next chapter.

# CHAPTER III

## Eating and Good Health

If a man is to live long, his eating on which he depends so much for health and strength and resistive vitality needs to be directed with reasonable care and intelligence. This does not mean that there should be intense solicitude about the diet as regards quantity and quality—that he should weigh carefully the amounts, and should search for possible idiosyncrasies in his personal constitution and its reaction to food. Most of this is illusory. Appetite is still the best guide to the food to be eaten, both as to kind and quantity. Eating of nearly everything that humanity has found agreeable and wholesome, is a good rule for the great majority of men. Meticulous attention to all sorts of curious dietetic maxims, even though they may be supposed to have the weight of authority and tradition behind them, usually does much more harm than good. A number of the traditions current with regard to eating are fallacies and have no foundation in our modern scientific knowledge of dietetics. Some of these are very old, and some of them are at least comparatively modern.

It is surprising how many of them are accepted by many educated people, though there is no justification for them in our present-day knowledge.

Very probably the best example that we have of a prejudice with regard to food which, although without foundation, yet persists in our time, is that which concerns veal. A great many older people are still inclined to think that veal is rather difficult of digestion. Some of them have listed it among the indigestible things that always cause them trouble. There is no good reason in the world for this. Veal is as digestible as chicken, and indeed is very much the same sort of meat. Prejudice against veal arose at the time when there was no refrigeration, and when, as a consequence, meat spoiled easily in hot weather. Veal being a moist soft meat would spoil rapidly, and was then dangerous because of the microbes that had grown in it. Now that we can keep meat on ice without spoiling for weeks and even months, there is no danger from veal. Bob veal (that is, very young calf meat) is so likely to spoil that many boards of health refuse to allow it to be sold. Milk-fed veal is, however, just as healthy as milk-fed chicken, provided it has been kept properly. Many of the laws with regard to the sale of veal are still on the statute books; but they are no longer enforced, because veal has come to be accepted as a very nutritious, easily digestible meat that the old

and young can eat rather readily, because it does not require very vigorous chewing.

Another unsubstantiated food prejudice is founded on that very old tradition with regard to the red and the white meats (or the so-called dark and light meats), which makes a great many people think that there is a very great difference between these meats as food materials. Even otherwise careful physicians still sometimes give dietetic directions that are founded on this supposed distinction. I have traced this tradition back to the fourteenth century, but it is probably much older than that. An old English surgeon of that time insisted that patients suffering from kidney disease—"nefretykes," as he termed them, or "nephritics," as we call them—should not eat the dark heavy meats. He recommended for them little birds light on the wing and supposedly light on the stomach. Modern physiological chemistry finds no difference between the red and the white meats that is of any material significance. The dark meats are more savory as a rule, and tempt to the eating of more meat; but that is the only distinction worth noting. All of us know the attraction of a juicy steak as compared to veal, for instance. The modern emphasis on the distinction as of great significance for health is without justification. Very probably, a good many people eat more meat than is good for them, but limitation in the amount of meat eaten

should, if necessary, be made directly and straightforwardly, and not by the roundabout way of the formula as to the elimination of the red meats from the diet.

There is a similar old-time tradition with regard to the presence of acid in the blood more than is normal, and its over-production through the consumption of certain substances in the diet. Some people refuse to take certain raw vegetables (such as tomatoes) or certain raw fruits (such as currants or various berries or oranges or grapefruit), because they are acid, or have a supposed tendency to add to their systemic acidity. We used to hear a good deal about uric acid in this regard, though very much less is said about it at the present time. The theory of its causative influence in rheumatic disorders is no longer considered scientific. Most of the traditions with regard to superacidity of the blood and its production by the eating of various raw vegetables or fruits, are now similarly regarded as without any basis in science. All the citrus fruits (oranges, grapefruit, lemons), in spite of their distinct acid quality, become alkaline in the blood, and tend to decrease and not increase systemic acidity. Rheumatism so-called (by which many people mean vague pains in joints and muscles) has no relation to acid blood, but is very often nothing more than muscular pains and aches due to wrong use and sometimes insufficient use of muscles. True rheumatism or

arthritis has nothing to do with acid blood, but is either a microbic disease of the joints or an irritation of delicate joint structures, due to the absorption of toxic materials from the roots of carious teeth or pyorrheic gums or from infected tonsils or from an infected gall bladder or appendix. Diet has nothing to do with these painful conditions that so many people complain of, and often attribute to the presence of certain materials in their food.

Finickiness about diet—that is over-solicitude with regard to the foodstuffs selected for eating, lest perhaps some of them should prove to be indigestible for the particular individual—is of itself a rather serious factor for disturbance of digestion; and it is often quite enough of itself, without the presence of other factors, to lead to what is called dyspepsia. Some forty years ago Dr. Austin Flint (one of our greatest clinicians in New York and a man whose long years of thoroughgoing scientific work in connection with the teaching of physiology gave him a very definite basis of scientific knowledge for his practice as a physician) used to insist that "dieting" had more to do with the production of indigestion than anything else that he knew. On a famous occasion, when there was a meeting of physicians in New York at which Dr. Flint wanted to contribute as important and yet as practical a paper as possible, he took for his subject "Chronic Dyspepsia." He said that, whenever a patient came to him complaining of dyspepsia, his

first question always was: "Do you diet?" And when the patient replied: "Yes," as he or especially she invariably did, he would say: "Well, that's enough to give you indigestion. I never yet knew anyone that dieted who did not have indigestion." When the patient would object: "But, Doctor! I diet because of my indigestion," he would say: "No, you have indigestion because you diet." I have quoted Dr. Flint's comments on this opinion of his in my book on "Eating and Health." It is surprising how many physicians agree with him, and more of them in our day even than in his.

Not a little of the worry about indigestion, and particularly about stomach digestion, has no justification in the present state of our knowledge of the stomach and its function. The stomach used to be considered the most important digestive organ in the body. That idea has gradually faded. The stomach is now of very much less importance in the minds of physicians than was the case at the beginning of the century. In not a few cases the whole stomach has been removed for cancer, and patients have proceeded to gain in weight after the operation. Indeed in the first case in which almost the whole stomach was removed (the operation performed by Schlatter more than twenty-five years ago), the woman gained some forty pounds during the following year. Under these circumstances (that is, with the stomach absent), it was found that the patients must be fed

every hour and a half or so, and their food has to be rather simple and fluid. The main function of the stomach evidently is as the enlarged end of the swallowing tube to enable us to eat enough food to last us for five or six hours, so that we may proceed to occupy ourselves with other things, and yet have a supply of nutrition that will keep up our bodily and mental operations until we shall have a chance to eat again. The real digestive organs are the intestines and the liver (the largest organ in the body), and the pancreas, which are attached to them and empty their secretions into them.

Curiously enough the stomach's main function is rather psychological than physiological. When we eat a mixed meal, the stomach has to receive starches and meats and sweets and fats, all in the course of fifteen or twenty minutes as a rule. To put it in chemical language, we receive the hydrocarbons (that is, the fats and oils), the proteins (that is, the meats and peas and beans and cheese and nuts), and the carbohydrates (that is, the starches and the sugars) all together. It is the stomach's business to pass these out to the intestines in regular order. The starches and sugars are allowed to leave the stomach during the first 60-90 minutes of digestion; then the proteins are passed on (usually the vegetable proteins first and then poultry, and finally the darker meats, pork being passed on last); and, finally, the fats are sent on to the intestines. Where the stomach learned to

recognize these various food materials, so as to be able to segregate them from the others and pass them on, is rather difficult to understand. Physicians have only learned to differentiate these materials with the development of physiological chemistry in recent years, but the stomach has known its business in the matter ever since the beginning of time, at least in so far as men are concerned. Of course, animal stomachs whenever they live on a mixed diet have this same ability and power of segregation—which is not surprising, since man too is an animal.

The secretory function of the stomach is of comparatively little importance. It is its motor function that is significant. Provided the stomach will pass the food on regularly to the intestines, then all is well. Its digestive faculty means very little. Indeed, in a number of cases it has been found that the secretory or digestive functions of the stomach were absent, and yet the digestion of the individual had been very little or not at all disturbed. These cases are known as *achylia gastrica*—that is, gastric failure to make chyle, or to begin that digestive change of food materials which transforms masticated food into a sort of gruel with some slight modification of the food materials. These patients' condition was often discovered almost by accident. They did not suffer from gastric dyspepsia to any marked degree, though they may occasionally have had gaseous eructations; but then these occur whenever there is a nervous dis-

turbance at all, for gas on the stomach is not due to fermentation, except in very rare cases. It would take a week of fermentation—for fermentation is a slow gas-producing process—to provide as much gas as a nervous person will gulp up in the course of half an hour or more.

In a word, development of knowledge has relegated the stomach to a very minor place in the process of digestion. Cancer or ulcer may produce serious disturbance in it (as they will in any other organs of the body), but the old ideas with regard to chronic organic indigestion due to changes in the stomach itself have a comparatively small place in the scientific medicine of our day.

The gastro-enterologists are very much inclined to say now quite frankly that a patient with stomach symptoms is suffering either from cancer or ulcer of the stomach or from complications produced by them, or else he has nothing the matter with his stomach. Other organs or systems of the body (such as the nervous system or the mind through worry) may be disturbing the gastro-intestinal tract and causing it to produce symptoms. A distinguished French clinician used to say—the expression is sometimes attributed to Trousseau, the greatest clinical teacher of medicine of the mid-nineteenth century: "I have seen a good deal of indigestion in my time, but most of it was above the neck, not below it." Someone has added to that expression the other: "The one su-

premely indigestible thing is the human mind. If you get that on your stomach, you cannot digest it off—you must lift it off." A great many stomach symptoms are the result of not giving the stomach enough to do. Especially is this true as regards gaseous eructations. They are usually supposed to be due to fermentation and dyspeptic disturbances of one kind or another, but they are often only the result of stomach emptiness. "Nature abhors a vacuum," is no longer good science in physics, but it is in physiology.

Many a man has shortened his life by worrying over stomach troubles that did not exist except in his mind, and by his consequent failure to eat as much and as varied food as he should. A great many young men, particularly, are inclined to think that, whenever their intestinal evacuations are not regular, this is the signal for them to cut down on their eating. It is really surprising how many patients confess to a reaction of this kind. The symptom of constipation ought to be the signal for eating rather more than less, as the best remedy that we have for constipation was expressed in the brief, forcible formula of an old Irish physician who said: "If you put enough in at the mouth end, it will usually move out at the other end without any trouble." This is one of the troubles that men have borrowed by thinking they had a reason for them when they have not. I believe that, once upon a time, someone asked St.

Anthony the Hermit (who, in his seventy years of solitary life in the desert, had enjoyed abundant opportunity for thinking about himself and his ills and concentrating his attention on his feelings) what was his greatest trouble in life. He is said to have replied: "Oh, I have had many troubles, but most of them never happened." This was a long while ago, but still there are a large number of very well-meaning people who go on borrowing trouble and not a few of them locate it in their stomachs, though now the physiologists teach us that the stomach is ever so much less important than we used to think, and that indeed it can be depended on to do its work very well, if only we give it enough work to do. Of course, this does not hold for stomachs already impaired by the presence of an ulcer and the consequent contraction due to scar tissue, but it applies to all ordinary healthy stomachs. The old symptom complex of dyspepsia from abuse of the stomach (overeating and even overdrinking and the like) no longer has a place in nosology, which is the nice long Greek word for the science of disease.

There are two rules with regard to eating that are more important than any others, if health and strength are to be maintained and long life secured as a result of proper care. These rules are rather surprising to a good many people, and, as a rule, to none more than those who a generation ago spent a good deal of time trying to find out what they

should leave out of their diet. Unfortunately, a great many people are ever so much more concerned in finding out what they should leave out of their diet than what they should leave in their dietary. After all, in so far as health is concerned, it is what you eat, and not what you do not eat, that counts the most. It is ever so much more important to know what you ought to eat, than what you ought to avoid. These positive rules for eating represent the practical formulation of conclusions forced upon us by the scientific investigation of nutrition and eating during the past quarter of a century.

These two precious rules are:

1. *Eat something raw every day.*
2. *Eat something indigestible at every meal.*

A good many people who think they know a great deal about their digestion are inclined to balk at both of these rules. Some of them have been prone to refuse to eat raw food, because they think that cooking adds greatly to the digestibility, and that raw food material is at least to some extent indigestible, and then has the danger of carrying living microbes with it, which of course are killed by cooking. On the other hand, those who are solicitous about health and especially about digestion make it a rule to avoid very carefully anything that they have heard of as containing indigestible materials. This is an unfor-

tunate state of mind in both these regards, because the intestines move regularly only as a consequence of the presence in them of indigestible material which must be evacuated. Excreta are carried out of the body, because the materials of which they are made up cannot be properly prepared for absorption into the system. Our digestive apparatus is not capable of bringing about such changes in these foods as would make them directly absorbable and nutritious. Some of them (as, for instance, the cellulose materials) can be digested by certain of the cattle, but not by our human digestive organs.

For the maintenance of health human beings must have regular movements of the intestines—at least once a day, and many people are better if they have a second movement. These will only occur provided we have in our intestinal contents indigestible material that cannot be absorbed and must be removed. Nature has so arranged that foodstuffs in their natural state generally contain a sufficient amount of indigestible material associated with the food materials, and that, therefore, a definite amount of residue will always remain. This parallelism between the plant kingdom and the needs of mankind and the animals in the matter of food and the regulation of their domestic economy, is a very interesting manifestation of the purpose that runs through the universe around us, and links up the various orders of living beings.

It is possible to remove a good deal of the indigestible material from food, and modern civilization has been prone to do that very sedulously. Very white bread, for instance, contains comparatively little indigestible material. That is why whole wheat bread or Graham bread is much better for most people. Some people remove carefully gristle and fat and other materials from meat, or refuse to eat the skin of chicken and the like; but it is much better to take the food materials in their natural state. Most people find the skins of baked potatoes very tasty. After having carefully removed the bran from wheat in making white bread, we are now engaged in putting back the bran into the diet in the shape of a breakfast food, or rather a series of them. We have to have roughage of that kind in order that the bowels may be tempted to move regularly.

The most interesting and significant discovery with regard to healthy nutrition has been the revelation as to the vitamins which has come during the past decade or so. If animals are fed exclusively on cooked food, even though they may be put on a very abundant diet, they will not thrive. The young fail to grow properly. The older animals suffer from skin disorders of various kinds, involving the falling out of the hair, as well as from weakness. They will not breed, and are short-lived. There must be raw food in the diet. Apparently there are vital energies in raw food which can be absorbed and ap-

propriated by the animal, and without them health is impossible. Undoubtedly, a great many human beings who have tried to live on very narrow diets, and who were afraid of microbes and therefore wanted everything cooked, have not had nearly as much energy as they would have had, if they had only eaten some raw things every day. There is a dread in some minds that raw things are indigestible, but that is not justified by recent careful investigations. According to the latest research, raw cabbage digests more readily than cooked cabbage, raw turnips better than cooked turnips, the same is true for raw carrots, and—strange as it will seem to many people—raw potatoes are at least as digestible as cooked potatoes. I know children who acquired the habit of eating potatoes raw when they were very young, and they liked them very much and thrived on them. Raw fruit is very valuable. This is true particularly for the citrus fruits, but also for raisins and apples and figs and dates. These raw things impart not merely nutrition but energy, and without them there is serious systemic trouble. There are at least three diseases of rather grave character—scurvy, pellagra and beri-beri—which have been traced to the absence of certain living elements from the food. It is probable that, where outspoken cases of these diseases do not develop, certain symptoms of tiredness in the nervous system, special skin lesions and the like may be noted as the result of the very

small amount or narrow variety of raw materials that finds its way into the diet.

A great change has come over the medical attitude toward eating as the result of the study of the vitamins. Much used to be made of quantity, but now the quality of food is thought much more of. Physiological chemists used to insist on calories as the all-important element in the matter of food, but now it is vitamins. A calorie is the amount of heat-producing substance that will raise in burning a weighed quantity of water a degree in temperature. This principle is applied to the burning up of food in the body. The value of meals used to be calculated then in calories, but it is perfectly possible to eat enough food to produce the required number of calories, and yet not be in good health. The food that represents heat-energy consists largely of the fats and starches, and there are other elements that must get into the diet. We must have a supply of mineral salts (particularly calcium, and of course common salt) for the sake of our bones and our digestive organs; there must be some iodine, some iron, and then the precious substances known as vitamins which act as stimulants to vitality. If an animal is fed on an abundant diet containing none of these elements (even though their weight when present is almost negligible), it will not be healthy.

As we have said, there are certain quite serious pathological conditions among human beings (not-

ably beri-beri, a generalized inflammation of the nervous system, scurvy, a blood and mucous membrane disease, and pellagra, a mutilating disease that affects also the mind) which represent deficiency diseases; that is, they are due to the lack of vitamins and other not well-understood material in the diet.

Experiments have shown, for instance, that, when animals suffer from a deficiency disease resembling pellagra, they can be cured at the outset by care in furnishing in their diet one of three yellow food-substances. These are carrots, the yolk of egg, and yellow butter as it is gathered in the spring time when the cattle live on the fresh green grass. The white butter of the winter time, when the cattle live on hay and grain, does not produce the same effect. Just what this substance is that prevents the development of a very serious disease in animals, we do not know as yet. Whether it is connected with the yellow color of these materials directly, we have no evidence. Unless something like this is taken, however, the animal grows weaker and weaker, exhibits various symptoms and a fatal termination ensues. This illustrates how important variety in diet may be, and also how valuable instinct is as an aid in diet, for all three of these materials are tasty for the majority of human beings.

Sometimes diet is narrower than it ought to be, and variety should be deliberately cultivated. For instance, cheese should be served at table a couple of

times every week. Nuts, which many think of as an unimportant addition to a meal, are another foodstuff that ought to be eaten at least occasionally but at regular intervals. The parings of fruits and of vegetables (especially of potatoes) are valuable. It has been said that orange peel contains more vitamins of a particular kind than almost any other substance that we know, weight for weight. We all know that as children we wanted to eat orange peel—not the hard tough Florida kind, but the thick brittle orange-yellow variety that comes more particularly from California. Children actually used to be forbidden to eat it. For a time it was considered to be quite indigestible. Now we know that the childish instinct to eat it is well founded, and that it is rather valuable for its vitamins, and also because it furnishes residue for the intestines. Occasionally when I eat it in a dining car at breakfast, people look at me rather strangely and wonder just what is the matter. A great many people prefer to have their orange juice squeezed out for them and to drink it out of a glass, though this deprives them of the valuable pulp of the orange as well as the skin—some of which, at least, ought to be eaten.

This same instinct that tempts children to eat orange peel in spite of prohibitions makes mankind like vegetables better the fresher they are. Green vegetables that are a week old, are not nearly so tasty as those which have just come from the garden. Let-

tuce plucked within an hour or two before it is eaten has a very different taste and a very different food value from what it would have if eaten after several days or a week of delay. The same thing is true for fruit that ripens on the tree and is eaten shortly after being picked, as compared with fruit that is plucked while unripe and allowed to ripen in cars or in storage before being put on the table

The fresher the green vegetables are, the more vitamins there are in them. What these vitamins are, is a mystery; they seem to represent in some way the sun's energy, though there is some question from experiments as to whether the emanations from green vegetables will not cause the fogging of a photographic plate. This, if true, would show that they give off ultra-violet rays (which also produce plate fogging), though there are no radiations that can be perceived by the human eye. These radiations seem to enter into the body some way, and add to its vitality. Hence the advisability of having a variety of fresh vegetables, and the fresher the better. In the old days when people lived all during the winter without fresh vegetables, because transportation was not so arranged that they could be shipped from distances as they are now, there was a great craving for fresh vegetables in the spring time; onions and lettuce were eaten with great relish, and people felt ever so much better as the result. They developed "pep," as we say now; and it is no wonder that there was

a very definite feeling that these fresh food materials had striking efficiency in making nervous and played-out people feel better. Many sanitarians are convinced that it is not alone because we know more about microbes and their avoidance that the average length of life is increased in our days, but also because there are many more of these fresh vegetables with their precious vitamins consumed now than there were even a few years ago, when fresh vegetables out of season were comparatively rare.

A good many men probably impair their chances for long life in their years before middle life by being under-weight to a considerable degree. They have to live so much on their wills rather than on any physical reserve that they exhaust some of their vitality. They are often quite unable to do as much as they would otherwise find possible, because they have no adequate store of energy. It is important for these people to put on weight. The only way to do that is by eating more than they have been accustomed to. They need particularly to eat their breakfast. It is surprising how many thin people eat very little breakfast. They not unusually take coffee—which nobody ought to take, unless he is eating a hearty breakfast; and that satisfies them by its stimulating qualities, and so they begin their day's work on yesterday's food. Some of them do not take very much lunch, but eat a very hearty dinner. Most of us are three-meal animals, and it would be better to

distribute our eating over three meals in the day. Many thin people could gain in weight simply by increasing the amount they eat at breakfast. Some of them are afraid that they will eat too much. It is not the people who eat too much, however, who suffer from indigestion, but the people who eat too little. Dieting and being solicitous about food are quite enough to give anyone indigestion.

A certain number of thin people particularly eat too slowly. I know that there is a very general impression that you cannot eat too slowly, and that we all eat too fast; but there is a falsity at the back of both ideas. There is a happy medium, and the eating of things very slowly often prevents thin people from eating enough. The one virtue in slow eating is that it keeps stout people from eating so much as they otherwise would. Physicians often tell patients to eat more slowly and chew more; patients then take to chewing their meat until it is shredded very finely, but there is very little need of that. If you will look around at the carnivorous animals, they chew their meat very little. They cut it up just enough with their cutting and paring teeth to avoid being choked to death when they swallow it; but they do very little mastication on it. What needs to be chewed, is vegetables. The animals that eat vegetables chew and chew and chew, and then often cough it up and chew it again after having swallowed it. This is rumination or chewing the cud. All vegetables

ought to be chewed, even mashed potatoes. There ought to be much more chewing at meals, not so much for digestion as for the preservation of the teeth and the prevention of various infections in the throat. Do not make chewing a business, however, as if you had to count the chews; and above all do not be glum and silent during meals, but make the meal time a joyous occasion just as far as you can.

Practically any one who wants to, can put on weight. I know there are a certain number of people who insist that they come of thin families who do not put on weight; but, when they come as patients suffering from certain nervous symptoms, I practically never have any trouble making them gain in weight. When they develop consumption, it is but seldom that they cannot be made to gain two or three or even more pounds a week. They say that they eat all they care for, but only a little investigation is needed to show that they have bad habits of eating, and that these are often a family inheritance, based not on nature but on environment. These folks have been light eaters of breakfast particularly. Just as soon as you insist that they eat their breakfast properly, they will gain in weight. Some of them are found to have prejudices with regard to desserts. These are only prejudices, however; and, as soon as they are overcome, weight begins to accumulate. It is only a question of taking milk and eggs and bacon and cake and the simpler puddings, and the scale beam soon

begins to show a gain. Thin patients who are constipated do not need laxatives, but need to be taught to eat more and probably also to drink more water or more fluid of any kind— even milk will do, for, in spite of the tradition to the contrary, milk is not constipating—and it will not be long before regular movements of the intestines are established.

After middle life over-weight is the great shortener of existence. Because of their sedentary life, priests are very liable to fall into flesh; and, even though they may not eat very much and eat but very simply, they are prone to put on more weight than is good for them. In recent years the insurance companies have been "weighting" the policies—that is adding to their premiums—just in proportion to the over-weight of the individual. It is extremely important, therefore, to avoid a gain in weight, and it must not be forgotten that, once weight has been put on, it is extremely difficult to take it off. Only a person with great persistence of character will succeed in taking off an additional thirty or forty pounds, particularly if most of this is gathered (as it is so prone to be) just beneath the belt in front and somewhat lower down behind. Only reasonably vigorous exercise of bending and stooping will enable a man to take off weight that has settled in these locations, and it is rather difficult for a priest to get the chance for any such exercise. It is true that golf has availed somewhat in this regard in recent years, but even

with that it is not nearly so easy to take weight off as it is to keep it off. An ounce of prevention is worth many pounds of cure in this particular respect.

It is possible, however, for a man to prevent overweight, and even to take off a certain amount of it by proper knowledge with regard to diet. A favorite expression in this regard in recent years is: "Eat and grow thin," and this is not a paradox, but represents a genuine and important truth. Our digestive organs crave a certain amount of exercise. If we eat concentrated foods, they resent it. There is a tendency to have the foods that are served to us more nutritious than they used to be—as, for instance, by adding butter and milk to mashed potatoes, and creamed sauces on the vegetables, with butter gravy or other rather thick gravies on meats and the like. Then desserts are made ever so much more rich in nutriment than they used to be, and there are combinations like pie and ice cream, or ice cream and cake (especially the richer cakes), that are sure to put on weight. Priests with a tendency to get fat must learn to deny themselves things of this kind, or to take them in limited quantities. In this regard, the expression of the lady already beginning to be a little bit stouter than she ought to be must not be forgotten. They passed her *stuffed,* CANDIED, *SWEET* potatoes, and she said: "Oh, I like them, but I must not take them. It's just a question of half a minute on your tongue and all your life on your hips." It

is not so much a question of the hips with men as the *coram nobis* which develops, and which, though sometimes thought to add dignity, seriously disturbs proportion, and unfortunately shortens life.

It is possible, however, for us to eat food materials that contain much smaller amounts of nutrition and carry with them residual material—indigestible adjuncts which occupy the attention of the stomach and intestines thoroughly, cause regular movements of the intestinal tract, and yet do not add to weight. These are the food materials that can be eaten in quantities, and actually cause the individual to grow thin. They are often appetizing and are nearly always satisfying. It is only a question of having them properly prepared and presented to us, and they accomplish their purpose very well. They are represented by such food materials as spinach, which contains only five or six per cent of food material, and that whole group of similar foods—beet tops, swiss chard, and the like. String beans are in the same class, though they contain a higher percentage of nutrition. Cauliflower is very similar, only it must not be eaten with rich cream sauce. The same thing is true for asparagus, though all the green portions should be eaten and not merely the tips. In this way the valuable residue is larger in quantity. Most of the salads are of similar food value, and are precious mainly because of the vitamins they contain. Green lettuce contains very little nutrition, but has iron and

vitamins in it. The white head lettuce, however, has a good deal of starch in it, and most white leafy vegetables share this tendency.

Tomatoes, in spite of old-fashioned prejudices, are excellent fillers with scarcely any nutrition. The board of health in one of our large eastern cities once declared that an ordinary dish of tomatoes, as served in a restaurant, contained scarcely more nutrition than a glass of pink circus lemonade, which is usually considered to represent the limit in its lack of anything like food value. Tomatoes are valuable for their vitamins, however, and that is why humanity has always liked them, and continued to take them even in the days when their pretty color made people suspect they must have some poison in them, on the general principle that nothing that was so pretty as that could be quite good for humanity. People ate them, too, and in spite of the fact that there was a tradition which connected tomatoes with the causation of cancer. Almost needless to say, this is utterly without foundation, and tomatoes are a very valuable addition to the diet.

In recent years humanity has been learning to add things to the diet that represent fillers without nutrition. The principal of these is bran, which, after having been carefully removed from the diet of humanity by the patent process of making flour, is now being put back into the dietary through the various proprietary breakfast foods made from it. These

are very valuable, and, if eaten with milk and not cream (and not too much of that) and of course without sugar, they leave large amounts of residue, and are therefore very valuable for encouraging intestinal peristalsis, and thus doing away with the necessity for taking laxatives.

People wonder at the necessity of taking quantities of indigestible materials of this kind. Nature, however, originally provided our food combined with these residual materials, and we have been engaged in removing them so as to facilitate eating, and enable us to get our nutrition easier in modern times. And we have paid the penalty for this sophistication with the tendency to overweight, hence the necessity for going back to the eating of more natural food. Our stomach and intestines (that is, what is called the gastro-intestinal tract) crave for occupation, and will not leave us at peace, unless we provide it for them. During the famine days in Ireland, the poor starving Irish learned the lesson that they could satisfy the cravings of hunger by eating seaweed. There was no nutrition in it, but it occupied the attention of the system, brought about a flow of saliva, started the stomach on its functions, and, while it would sometimes be rejected, oftener it would find its way on to the intestines and occupy them somewhat too. It was satisfying, though not nutritious. Some of our breakfast foods at the present time are in this class, but have a value of their own

all the same. They illustrate very well the principle: "Eat heartily, yet grow thin."

With these food materials there are other substances which are really not nutritious at all, but which are eaten as relishes, and are very valuable in the campaign of eating and growing thin. They are represented by such materials as pickles, pickled cauliflower, onions and the like, pickled beets together with chili sauce, tomato catsup, and other such materials. Most of the raw fruits, except when lusciously ripe, are in the same class, though of course this does not include bananas. In the matter of desserts, it is well to remember that the new-fangled gelatin desserts, now so much advertised, have very little nutrition in them, and may therefore be eaten with impunity as a finisher for a meal, provided they are not taken with rich sauces. The French custom of cheese and crackers and some black unsweetened coffee for dessert (instead of sweets), is an excellent one to keep off weight or take it off. The cheese should not be ordinary dairy cheese (of which there is a temptation to eat more than is good), but some of the varicolored smelly cheese, of which a small amount is usually satisfying. Nuts make an excellent dessert, and so do figs or dates, if eaten only in small quantities.

For men who lead sedentary lives, long life depends more on two factors than on any other. These are, first, sufficient exercise, and, second, proper eat-

ing. There must be exercise enough in the open air to give a man an appetite for his food, because on appetite depends digestion. Experiments have shown that, when animals care for their food, they secrete digestive juices that are stronger and more potent than when they do not care for it. Exercise in the open is still the best tonic and appetizer that we have. As regards eating, it must be sufficient to enable one to go on with one's work, and yet must not be so much as to cause over-weight as the years advance. In order to assure this, the scale is the principal index. Gain or loss in weight should be noted at once, and proper precautions taken with regard to it. The weight record need only be kept for each month, but it ought to be noted not seldomer than this. As one gets older, one needs less of the substantial nutritious foods, and more of the foods that bulk rather large but have not very much nutrition quality. The greens and various fresh vegetables come in to supply the places of peas and beans and potatoes. One may eat heartily and keep thin, and it is the thin horse for a long race, and the thin man (in the sense of one not over-weight) who lives a long life.

## CHAPTER IV

### Air

Some 300 years ago, in his famous "Don Quixote" —"incomparably the greatest novel ever written," Macaulay said—Cervantes made Sancho Panza say: "God bless the man who first invented sleep." A generation ago one of our American humorists, John G. Saxe, very popular in his own day but almost forgotten in ours, added the expression: "And God bless him that he did not keep his invention to himself by patent right." Something nearly the same as this might be said with regard to the invention of air. It is by far the most important element for life that there is. Most of us can probably live without food for a month or even longer. We can live without water or fluid only for four or five days at the most, but we can live without air for not more than three or four minutes, unless by chance we faint from shock, and so our vital functions stop for a while. This is what happens not infrequently when people realize that they are in danger from drowning. Panic drives them into a heart collapse that stops respiration, and leaves the heart itself beating only just enough to maintain life. Hence the necessity to try

every possible means for the restoration of life of those who have been under water even for an hour or more, for they may not be dead but only in a syncope.[1]

There is no patent right on air; indeed the phrase "free as air" has become proverbial. Yet it is extremely difficult to get a good many people to take all the air that is good for them. Air is extremely important for health, and nothing has contributed more to the lengthening of life, especially in our large cities, than the fact that we are gradually getting away from the overcrowded slums and giving people more and more chance to breathe air unbreathed by others. We have revolutionized the status of consumption in the modern world by insisting that people shall live more in the air. As a result, there are not only fewer deaths from the disease, but many fewer patients require treatment. Tuberculosis has proved to be one of the most curable of diseases. We have reduced the death rate from it to nearly one-half in the course of a single generation just by the advocacy of the open-air treatment. People used to be afraid of the air and its effect on consumptives, and shut up such patients in hermetically sealed rooms, actually putting paper over the cracks of doors and windows and stuffing keyholes with cotton, and doing infinite harm when the cure for the worst disease that man-

[1] Hence the advisability of the Last Sacraments being administered for several hours after apparent death by drowning.

kind had was in the free air around them. Our pneumonia cases do ever so much better with open than with closed windows, and are treated most successfully in tents or on balconies or roofs of hospitals. If air does so much good for the ailing, it is even more important for the well to help them maintain health.

There are a great many prejudices with regard to air. Some people are sure that the night air is deleterious, and carefully exclude it from their sleeping rooms. This is a very old tradition due to the fact that in the old days they did not know that malaria and yellow fever and certain other diseases were conveyed by the mosquito, which has sense enough to avoid traveling much by day, but wanders round in the cool of the night, and is the carrier of various diseases that were attributed to the air. The very word, *malaria,* means bad air, though the disease is carried not by the air but by the mosquito. It has been demonstrated in malarial districts that, if you exclude the mosquito, you can live in perfect health in the worst kind of malaria-ridden districts. Englishmen have lived in tents on the Roman Compagna in the midst of the dread Roman fever, and, when protected from mosquitoes, have lived perfectly healthy and then have taken the mosquito to London and allowed it to bite them there and acquired Roman fever. We need screens in our windows, but there ought to be free ingress of air into

all sleeping rooms at night. This is true even in quite cold weather. Extra covering should be used to maintain body heat. Cold air is even better than warm fresh air, because it stimulates.

It must not be forgotten that the only pure air at night is the night air. Indeed the night air is a little purer and freer from germs of all kinds than the day air, because there is less dust at night. There is not so much movement and the dust settles, and it is dust in the air that is dangerous and not the air itself. There used to be a good deal of dread of gaseous exhalation of various kinds from damp ground or river banks or from the mouths of sewers. Sewer gas probably has some deleterious effect especially in predisposing to disease of the throat, though it is probable that the flies which haunt sewer openings are more dangerous than any exhalations that come from them, unless there is exposure to them over a prolonged period. Fortunately, the odor constitutes a warning. Epidemics used to be supposed to be due to air-borne factors, and for a time it was an accepted theory that epidemics that spread over the world were due to the earth running into an "epidemic" portion of space, which, as it were, diffused the disease. These ideas are now entirely rejected. People used to wear masks during epidemics to exclude what they thought disease-laden air, but this probably did more harm than good.

There is no reason to be afraid of air, and yet many

people dread it very much. They are afraid of draughts and some people are quite sure that, every time they sneeze because some dust has been blown near them, they are catching cold, though this spasmodic reaction of the diaphragm which throws off dust particles is a definite indication that one is capable of disposing of the evil effects of dust. Very probably the healthiest place to be is in the middle of the ocean on a steamer running fifteen to twenty miles an hour with a wind of fifteen or twenty miles blowing in the opposite direction. This is to be in the midst of a draught, but there is not the slightest danger from it. People catch cold if a good deal of dust directly from the street is blown past them and they breathe it in, but that is because dust carries microbes, and microbes are dangerous. As soon as you get up beyond five stories in the city you are, as a rule, out of that danger. There is much more of prejudice than truth with regard to the ill-effects of draughts. We put our tuberculosis patients sitting outside even with the wind blowing rather freely, confident that it will do them good and not harm. Polar explorers are often exposed to winds blowing thirty to forty miles an hour with a temperature twenty to thirty degrees below zero, and they do not catch cold. Colds are extremely uncommon in the colder regions, as they are up on high mountains. Members of polar expeditions and Alpine climbers, perfectly healthy while exposed to extreme cold, have

been known to catch severe colds within a week or two after their return as a result of intimate contact with those suffering from the disease in the lowlands or lower latitudes.

Air is not only important during the night, but also during the day. A great many people who suffer from depression and from a sense of exhaustion (that is, the mental and physical states which disturb a great many people), would have much less trouble in this way, if they got out more in the air. It has been rather well said that that "played out" feeling is due to not playing *out* enough, while that "all in" feeling is due to the fact that you are staying *in* the house too much. These may seem to be only smart expressions, but they have a very definite significance that makes them worth while recalling, and they sum up important truths. I have known people who suffered from scruples to be very much improved by getting out more in the air. Sometimes their feelings keep them from taking recreation and getting out as much as they ought to, and the establishment of good habits in the matter of getting out regularly will do them more good than any measures directed more particularly to their spiritual state.

Air ought to be taken in good deep breaths, but that is not secured so well by deliberately breathing deeply. That is better than nothing, unless of course one is already suffering from a cold or from pulmonary tuberculosis when there is a certain amount

of danger of disseminating the germs of these infections from diseased areas to those not as yet affected. To do most good, the deep breathing ought to be induced by active exercise of some kind, for in this way the lungs become more active, oxidize the blood thoroughly, and as a result all the tissues are stimulated.

A great many people are very much afraid of the cold air, but there is no reason for that. On the contrary, there are a great many reasons for thinking that people live longer in a moderately cold climate than they do in one where there is only a slight change in the temperature from winter to summer. It is a well-recognized fact that pneumonia is less fatal in the colder northern cities than it is in the southern warmer cities. The respiratory diseases generally are benefitted by cold weather. We send our tuberculosis cases up to the Adirondacks where the temperature from the first of December until the first of March is likely to hover around zero, and where there is snow on the ground from the first of November until almost the beginning of June, and sometimes even beyond that. Our patients get along much better there than they do in the milder climate, where it might be expected that the possibility of being outdoors most of the time without discomfort would be almost ideal for tuberculosis patients. We used to send our consumption cases to the Riviera and to certain parts of northern Africa because of

the mildness of the temperatures there, but this probably always shortened their lives, and almost never produced any curative reaction. For that you must have a variation of twenty to thirty degrees at least in the temperature every day. To get out into cold air for even a short time is tonic and stimulating. We say that it is bracing, and nothing gives an appetite like exposure to cold air.

A great many people are afraid of catching cold in the winter in this way, and the older generation particularly was accustomed to say that they had caught cold by going out. Colds are really caught, however, from other people who have colds. They represent a series of germ diseases. Most of these have an incubation period of at least three days, and some of them have an incubation period of a full week. When a man says: "I sat in a draught last night, and I sneezed and caught this cold in my nose," it is very probable that the cold had been working on him for three to five days or more, and that the sneeze was the first external symptom of it, rather than the evidence that he was taking cold at the moment. Men have tried to give themselves cold by exposure to cold but without effect. Young Russian physicians, for instance, have run around outside with practically nothing on in a temperature below zero. After they have gotten themselves all aglow in this way, they have plunged into a snow bank, and then have run some more and gone in and taken a bath

and awaited results in the shape of colds or bronchitis, but have had none. Here in New York it is not an unusual thing to see some of the young fellows running in the park in athletic togs (which consist of nothing but a single layer of cotton) on cold days in the winter time, with their legs bare from above the knees and their shoulders and neck uncovered, but one does not hear of serious results.

I have often been asked whether women, by exposing so much of their bodies to the cold as they do by the fashionable gowns of today (with the neck low and the bosom of the dress rather well cut out and with no covering below the knees except the flimsiest of silk stockings and very thin slippers), are not sure to contract serious disease, but the only answer that can be made to the question is that that is not the way we take cold. One is much more liable to take cold from wearing too much clothing. I often see thin nervous patients wear a couple of layers of woolen underwear and then perhaps a chamois or wool chest protector, rather heavy woolen outer clothing with a heavy wool overcoat, and I think that they are subjecting themselves much more to the danger of taking cold than if they went with ever so much less clothes on them. Of course, one must not change one's habit in the matter in the midst of cold weather, but overheating with consequent sensitization of tissues and relaxation of the circulation is much more responsible for the development of colds

than exposure to cold. Colds are much commoner in our over-heated apartment houses at the present day when the temperature is often seventy-five or eighty degrees than they were in the poorly heated houses of two generations ago, when the open fire-place was only a gesture, and one never got heated all the way through, though one side of the body might be almost roasted. We slept in temperatures in those old houses in which water would freeze in the pitchers beside our bed, but we did not take cold, and pneumonia was less frequent than it is at the present time.

The experiences in the polar regions are very instructive in this regard. Members of polar expeditions exposed to temperatures of forty degrees below zero and even lower, who have to go out into blizzards when the wind is blowing forty to sixty miles an hour with a temperature way below zero, do not take colds and do not die of pneumonia. They get their fingers, noses and ears frozen; they have to be mighty careful about their toes, but, in spite of sleeping in igloos or other confined quarters where the ventilation is just about as low as human nature can stand it, they have no trouble with their lungs. Some twenty years ago, Nansen and his men spent two years in the Arctic regions without any trouble from colds or respiratory affections of any kinds. Within a week after they got back into civilization, they were all down with grippy colds. This is what might be expected from what we know of the bacteriology of

colds, but this is a direct contradiction of popular impressions with regard to the relationship between cold and respiratory disease, and, as the dread of colds often keeps men in the house when they ought to get out, it is well to have some of these facts before us.

We had a very interesting experience with extreme cold weather and its effect upon health here in New York City some ten years ago during that war year when coal was so difficult to obtain. That year was the coldest year in the history of our Weather Bureau. Coal was so hard to get that in many hotels they shut off the heat in the private rooms during the day and asked people to spend their time as far as possible in the living rooms of the hotel. In spite of the fact that all available heat was supposed to be in the public parts of the hotel, I remember talking in one of the most important of our hostelries to a group of business men who all wore their hats and overcoats during the meeting. They asked me if I had any objection to my audience being thus covered, and I replied that I had none in the world, if they would only let me too wear my hat and overcoat. The temperature that day even at noon was below zero. We had just gone through nearly two weeks of zero weather. That January and February were the coldest in our history. In spite of that, there were actually 2,900 fewer deaths during those two months than during the corresponding months of the preceding year, which were almost the warmest in the

history of our Weather Bureau. A great many people, including the old and the very young, lived and slept in rooms that were much colder because of the lack of coal than they had been accustomed to for some years at least before this time; yet, they were in better health.[2] Facts like these should be recalled, whenever there is a dread of cold air or a disinclination to get out into the cold.

A very fruitful source of colds in our day is—not, as is thought, the catching of cold from exposure to cold air but—the overheated air of our houses. More and more our houses are all heated by steam or hot water. This raises the temperature of the room very satisfactorily, but it leaves the heated air without its due proportion of moisture. We need to breathe for health's sake moist air. The amount of moisture that air will hold when it is cold is much less than when it is warm. If the ordinary cold air from the outside is simply heated as happens by steam heat, then it lacks moisture to a very great extent, and it absorbs moisture from every possible source. As the result of this, it takes moisture from

[2] Churches in the old days of wood-burning stoves were intensely cold except in the neighborhood of the stove. Yet, people did not catch cold so much in them as in our cozy, crowded churches. In sanatoriums for consumptives direct heat is kept out of rooms, because cool air is stimulating and restorative. Small well-heated dressing rooms are provided, so that the patient may not be chilled getting into or out of bed. Of course, the patient is made comfortable for sleep by sufficient covering—even to the wearing of woolen gloves and night-cap, if necessary. Cool air is considered an asset, and not a detriment.

our chairs and furniture generally, and causes them to fall apart rather readily. It takes moisture from the backs of our books, and particularly from leather, and causes that to disintegrate rather easily. It takes it from wall paper, and makes it hard to keep this on the wall. But, above all, it takes it from us. It leaves our mucous membranes very dry, and this is an unhealthy state of the mucous membrane. The cells of our mucous membranes are marine animals, as it were, and live best when freely bathed in the salt solution that comes to them from the blood.

Dry mucous membranes are much less capable of protecting us against colds than when they are moist. Our noses are so arranged that under ordinarily healthy conditions it does not matter how much dust is in the air; none of it finds its way into our lungs when we inspire, because it is caught on the tortuous passages of our nose, and especially on the surfaces of our spongy nasal mucous membranes, and retained. Nature makes a provision by which there is a flow of secretion from the nasal mucous membranes which carries the dust down and out if it is in quantity, or which holds it fast in the viscous gelatinizing nasal mucus which we then remove by picking and cleansing the nose. When our nasal mucous membranes have to deal with very dry air, however, they are not able to do this. The result is that microbes find their way to the back of the throat, into the larynx, and down into the lungs. They produce the

various forms of so-called colds, rhinitis, pharyngitis, laryngitis, and bronchitis, according to their location.

Under the circumstances it is important to keep the air in living rooms moist. There ought to be water in connection with the steam-heating apparatus, constantly giving off some moisture into the air. While we take rather careful precautions to prevent the dust which is swept upwards from the floor in connection with the heat from a register from staining the walls, we do not make corresponding provision for putting moisture into the air of a room. This predisposes us to colds. Besides, our steam-heated rooms are kept at too high a temperature. When we had the open fireplace, the temperature of rooms was seldom much above sixty. With the closed stove (the invention of Benjamin Franklin), we could get the temperature up to sixty-five. Our hot-air furnaces (which were much better than steam heat because they provided for the saturation with moisture of the air that was sent up to warm rooms) caused the temperature in the house except in the halls and perhaps at the northern end of it to be raised to nearly seventy. Now with steam heat it is not unusual to have a house heated to seventy-five, and I have seen it even higher than that. Hot dry air of that temperature is very hard on mucous membranes.

People ought not to go out from air as hot as that

into the cold air at once, because it is too much of a shock for the mucous membranes. Neither should one come in directly from the cold air into a temperature as high as that. It is well to linger for a while in the vestibule. Fortunately, the delay between the ringing of the bell and the response to it in most houses is quite sufficient to provide a transition period of that kind. Some people resent it very much if the bell is not answered at once, but it is better that there should be some delay. In the same way on going out one should linger for a while in the vestibule putting on rubbers and other things of that kind, and so gradually accustom the mucous membranes to the cooler air which they are to meet as soon as they get outside of the house.

Overheated public rooms where a number of people are together (as, for instance, theatres, halls, churches and the like) are particularly likely to be dangerous in the matter of diffusing colds, because the mucous membranes lose resistive vitality from the heat and the dryness of the air, the movement of the crowd and the coughing sends a good many dust particles out through the air, and these are breathed in and are not readily thrown off because the mucous membranes lack resistive vitality. Such meeting-places that have no direct sunlight during the day (as is particularly true of theatres, moving picture houses and the like) are particularly prone to diffuse disease. There is no antiseptic, or perhaps we should say no

bactericide (that is, no killer of microbes), equal to sunlight. Direct sunlight for a couple of hours will do more than any antiseptic of any kind in making a room thoroughly sanitary. There are, however, no arrangements for providing direct sunlight in the theatres as a rule. I suppose the owners are afraid of the hangings and upholstery fading under the influence of it.

Fortunately, the introduction of the vacuum cleaner has done much to lessen the danger of catching cold in theatres, moving picture houses, Pullman cars and other enclosed spaces. In the old days when sweeping with a broom was done, this spread a good deal of dust around, and it settled again in a position where it could be rather readily diffused through the air on every movement. The vacuum cleaner, if used every day, takes the dust actually out with it, and so makes conditions ever so much more sanitary than before. It should be used every day, wherever crowds assemble regularly, and of course should be used at least once a week in churches. If possible, the cleaning should be done on Saturday and not on Monday —unless there could be two cleanings for the week, when of course Monday and Saturday mornings would be the very best time.

Dust and not cold, hot air and not cold air, represent the dangers of taking cold, according to our modern ideas. There are other modes of contact that may transmit the germs of colds. It is very

probable, for instance, that people suffering from colds should not shake hands with those who are well. Almost inevitably in the course of coughing and blowing the nose some germs from the infected air passages find their way on to the hands of those who are affected. It matters not how meticulously clean they may be, they will transfer some of these germs to others if they come directly in contact with them. It is an excellent rule, then, before eating to wash the hands very carefully. Sanitarians suggest that this washing should last five minutes by the watch. That does not mean for just a minute or two and carelessly, but it means that in good hot water and with plentiful soap the hands should be cleaned thoroughly for five minutes. This will remove microbes when ordinary hasty cleaning will not. If, after having been in contact by shaking hands or the like with people who are suffering from colds, we go to the table without proper washing and eat our bread and rolls out of our hands or in other ways convey microbes to our mouths, of course we catch the cold. People in the same household should be careful about the dissemination of colds. They should take special precautions not to use drinking cups in common with others nor to handle books that others have to handle without being very careful in the matter of washing and cleaning. Such precautions are usually neglected, but that is because people do not know the necessity for them, and they have not been told the

most recent conclusions of sanitary science in these matters. A great deal can be done to ward off colds from oneself and also prevent others from taking them, if these precautions are observed, and yet they need not be carried to an exaggerated extent.

## CHAPTER V

### Rest

The question of rest and health is always very important. As priests have to get up often for Mass at seven o'clock or sometimes even at six, it is extremely important that they should get to bed well before eleven o'clock. I am reliably informed that a great many of them do not. Indeed, some of the older priests are inclined to think that the seminaries must give a special course in wakefulness until midnight or later, because comparatively few of the younger priests, if they are healthy, seem to be able to get to bed before midnight. There should always be at least seven hours in bed. Very probably about eight is better, though sleep during the full time is not necessary. The old-fashioned formula established by the Greeks and enunciated by King Alfred in the early medieval period of the "three eights" is still the safest rule. There should be eight hours for sleep, eight hours for some serious occupation, and eight hours for the needs of the body and for recreation. The man who does not do eight hours of serious work has no right to claim his share of recrea-

tion, but some arrangement by which the day is divided up this way rather regularly is excellent for health and strength and conservation of vitality and satisfaction in life.

People sometimes think that they can make up for the loss of sleep at night by taking a shorter or longer *siesta* in the afternoon. In hot countries where the middle of the day is very likely to be so oppressive that work cannot be done with any satisfaction, this is probably an excellent arrangement. It is difficult for them to get to sleep early in the night until after the day temperature has cooled down somewhat, and, as they need the rest, a *siesta* is an excellent institution. In the temperate zone, however, it is much better not to do that as a rule, for a continued sleep for seven hours is more in consonance with the needs of human nature. A very short nap for ten or fifteen minutes after the midday meal, especially if taken in a chair or on a sofa, may be restful. Deep sleep indulged in for an hour or even for half an hour in the afternoon is almost sure to leave one a little befogged in mind and soggy in body for the rest of the afternoon, unless one goes out at once and indulges in some vigorous exercise. Indeed, as a rule, it is better after the midday meal to go out and attend to errands of various kinds that one may have to do, because, if one sits around and naps a little bit, one gets to feel loggy and heavy and it is hard to do anything really worth while, and even

reading becomes rather difficult. This is particularly true in the summertime, and yet a nap indulged in at this time will surely interfere with sleep early in the night and cause an upset in the regular order of vitality for the twenty-four hours.

It seems better that our rest, as a rule, should be taken when we are on a descending plane of vitality. There is a daily rhythm in this matter that is well known. Our temperature is highest, our pulse most frequent, and our general vitality most vigorous, toward the end of the afternoon. Then pulse and temperature begin to descend, and they are at their lowest in the early morning hours. It would be well to have our rest hours coincide with the terminal part of this period. There is an old proverb which declares that an hour of rest before midnight is worth two afterwards, and, while this is not absolutely true, there is more than a little truth in it. Artificial light has unfortunately tended to make mankind turn night into day, and many people stay up until after twelve and then sleep on during the daylight hours of the morning. If one were to try to arrange life for the ideally best development of the physical powers, then rising at some early hour like five to six o'clock and going to bed seven or eight hours before that, would seem to be the better way. Certainly, although nature will accommodate herself to late hours (as she does for night workers who come to have their lowest temperature and pulse at a different time from

others according to their hours of rest), it is better not to demand anything like this, unless there is some absolute necessity for it.

Rest is very valuable for humanity, but like every other good thing in life may readily be abused. Probably, no one who is over twenty-five and who is in reasonably good health, ought to take more than eight hours of rest in the day, unless there is some very special reason in exceptional circumstances. As a great French physician said, rest is a very valuable but a dangerous remedy. It is easy to take too much of it, and acquire by habit the need for more of it, so that it becomes harmful. It is as valuable a remedy as opium, but as dangerous on account of the tendency to acquire a habit with regard to it. We develop a certain amount of energy every day, and, unless we use it up, it is used up within us usually with the result of certain feelings of restlessness, sometimes spoken of as nervousness, and muscular tension which is disturbing. We have no accumulator in which we can store up energy to be used later on. We must use up our energy as it is manufactured.

When we want to do some very strenuous action or go through some very vigorous activity, we do not rest for a week or a month beforehand with the idea that thus we shall accumulate energy that may be available when we want to use it at a critical time. On the contrary, we keep just as fit as possible by exercising every day nearly to the limit of our capacity

to do things. Of course, we have to be careful not to get on edge and go stale, but we must exercise right up to the time when we are to make the special call on our energy.

This needs to be remembered at all times and represents the rule with regard to vigorous action generally. Rest does not save strength and vitality. On the contrary, it is very well understood by those who know most about the subject that we rust out more easily than we wear out. Curiously enough, this is true also for machinery. If allowed to lie idle, it rusts and becomes useless sooner than if it is used very regularly. One might expect that it would be the people who did very little, and therefore conserved their force, that would live longest. This is not true, however. The long-livers have nearly all been men who have worked very hard, and above all who have taken comparatively little sleep. Men like Humboldt who have lived to be ninety, have declared that in their middle life they often took only three or four hours of sleep at night. I have made it a point to be on terms of intimacy with a dozen or more of old physicians in New York, men who have lived well beyond four score (one of them, Stephen Smith, to be nearly a hundred, and Emmet and Jacobi to be nonagenarians or almost that age), and they have all told me about the reduction of their sleep and the hard work they did, and yet they were in prime vigor of mind and body until beyond eighty-

five. Mental work does not seem to shorten life, but strengthens and lengthens it.

The all-important factor in occupation for long life is that there shall be diversion of mind. A man ought to have something or other that he likes to do very much, in addition to his ordinary avocation. If, for instance, he is a busy pastor, he ought to have some hobby that he is very much interested in. The writing of books will do, or the making of translations. A man who is a professor at a college may find complete diversion in the writing of poetry. Book-collecting, if one follows it up in some special department, makes an excellent hobby and may prove very valuable for succeeding generations. There should be something that is of special interest to you so that no time will hang heavy on your hands. Some people are inclined to think that reading is a sufficient diversion, but it is not, unless the reading is done with such intensity and purpose that it constitutes not what we call reading but studying. That was the old significance of the word reading, as is evident from Lord Bacon's expression, "reading maketh a full man." Actors still speak of reading their parts, when they mean reciting them. Modern reading, and especially of the newspaper and magazines or of current novels, is scarcely ever any real diversion of mind. Probably the best demonstration of how little real occupation of mind there is in reading is to be found in the fact that there is no better way of

getting to sleep without trouble and delay than reading.

Reading the newspaper in our day is likely to do harm rather than good for most people, and especially the nervous, because it emphasizes our own troubles by calling attention to the troubles of others. There is a feeling that we derive a certain consolation from reading about the unfortunate things that have happened to others on the principle enunciated by Rochefoucauld that even the misfortune of a friend causes us pleasure, or Schopenhauer's maxim that contentment is the feeling that things might be worse. For people who are worried and anxious about many things, however, this bringing up before them of the troubles of others is always unfortunate, and one of the directions that I insist on for nervous patients is that they should give up reading the newspapers. This same thing holds for most of the 4,000—that is the number of them, I believe—modern magazines. They are so trivial, as a rule, that there is no real occupation or diversion of mind in them.

This is what is important to secure. If our mind has been taken up during the day with certain thoughts, a definite number of brain cells have been occupied, and, having become preoccupied, it is hard to get them to stop functioning with memories and reminders of what we have been at, unless we turn to something that interests us deeply and occupies another set of brain cells, setting them to work.

That is why going to the theatre, if there is a good serious play that makes one think, is an excellent diversion of mind. Going to see a play or entertainment that merely makes one laugh, may prove to be no diversion at all, or only a slight one. It is no use trying to have the mind do nothing, for apparently it cannot. It is probable that we dream all the night long, only remembering those dreams that come to us when we are waking. If you sit and gaze out of a window of a train, you can day-dream and no memory at all of the thoughts that have gone through your mind will remain. There must be active diversion of attention in order to secure a rest for the mind. We must do something quite different from what we have been doing, and something that interests us.

Hence it is that we so often find that the men who live long have had some very compelling hobby to which they turned whenever they could possibly find a chance. Dr. Emmet, for instance, who lived to be ninety-three, made the best collection of documents relating to American history ever brought together. This constitutes what is known as the Kennedy-Emmet collection in the New York Public Library. Dr. S. Weir Mitchell found when he was a man scarcely more than forty that he could not spend his summers without some intellectual occupation. He proceeded, therefore, to write a book every year. After a very busy practice during the winter in Phila-

delphia, it would seem as though this must represent burning the candle at both ends, and that he would inevitably die young; and he did die young, but he was eighty-seven years of age.

Hobbies (such as social service in some form, the organization of social work of one kind or another in the parish, the maintenance of young folks' dramatic societies and of boys' clubs, than which nothing is a more absorbing occupation) may all constitute hobbies that represent real diversions of mind in the ordinary occupation of a priest. Health of mind and body is very largely dependent on having such diversion. Many priests have interested themselves in the geology or the paleontology of the regions in which they live. Missionaries have devoted themselves to making grammars and dictionaries of the languages of the savages among whom they dwelt. This work has been done with a definite idea of helping the christianization of the savages, but it has had the secondary effect of affording a hobby that was very interesting and satisfying. No less than a dozen of priests have left their names deeply engraved in the history of paleontology and archeology because of the investigations that they have made and the time and patience they have devoted to gathering materials related to these sciences. I have recently called attention to the distinguished work of Father John MacEnery, a young Irish priest, in this regard, and to a group of Spanish,

French, Belgian and German priests who have added greatly to our knowledge in this department.[1]

Especially, if one is not very well, a hobby that keeps one from thinking about oneself may be extremely valuable as an aid to health. A distinguished Jesuit entomologist owes his interest in his favorite science to the fact that, as a young man, he was threatened with pulmonary tuberculosis and had to spend a good deal of his time out of doors. Most of this was spent in the garden of the religious house in which he lived. The ants in the garden attracted his attention, and he began to study their ways. In the course of time he learned a great deal about them and then came to be an authority on this subject and the related subjects of the hosts and parasites of the ants. Altogether he has described more than 900 species of ants with a large number of species of hosts and parasites. For it is not only true that fleas have other fleas to bite 'em, and so on *ad infinitum,* but also ants have parasites and hangers-on that are well worthy of study. In connection with ants, Father Wasmann, S. J., took up the study of evolution, and, when he had a debate with the scientific leaders in Germany some twenty years ago, what surprised the German periodicals was that this Jesuit could argue so much more logically out of a fund of knowledge at least as great as that of the most distinguished German scientists of his day. It had all been acquired,

[1] *Ecclesiastical Review,* July, November, 1926.

or at least the foundation of it laid, while cultivating a hobby that occupied preciously the hours that he had to devote to open-air life, because his health demanded it. A hobby that takes one into the open is ideal for health and longer life.

## CHAPTER VI

### Blood-pressure

During the past few years particularly, a number of priests have become very much disturbed over the subject of their blood-pressure and its meaning for longevity or shortness of life. The whole subject of blood-pressure is a new one comparatively and not well understood. There is an old Latin expression—attributed to Tacitus, I believe—which declares *omne ignotum pro magnifico*. Freely rendered, this may be said to mean that "anything that is not very well known is likely to be exaggerated in significance." Certainly, a great many educated people who have heard talk of blood-pressure, and who have read a number of things about it in periodicals of various kinds and newspapers, have come to feel that any heightening of blood-pressure is of very serious significance, and that it portends a shortening of life, or even not distant death, when it becomes manifest. It has become for a great many people a new source of dreads and worries, though there were enough of these in the world before; but it is another example of the truth of the old saw that "a little knowledge is a dangerous thing," and that it is

much better for us, as Josh Billings said, not to know so much as we think we do than to know so many things that ain't so.

The one thing that we know about heightened blood-pressure that is important is, that worry over it is the worst possible factor in a case where it is present. Individuals who have a high blood-pressure, are not so much likely to be short-lived as that they do not live as long as the average around them. But this is often only a comparatively brief shortening of existence. Very high blood-pressure always exposes one to the danger of the rupture of an artery in the brain (what is known as apoplexy); and this of course is always serious, and may prove fatal, and always leaves one liable to subsequent "strokes." Even the knowledge of this, however, does not justify the anxiety and solicitude over any hint of the presence of increased blood-pressure that comes over some patients. Occasionally, physicians (and especially those in sanatoria, intent on impressing patients with ideas of illness rather than health) are prone to make ever so much more of even slight abnormalities of blood-pressure than scientific medical knowledge of the condition justifies. The blood-pressure apparatus is something of a new toy, and young doctors particularly are likely to make a display of it and draw conclusions from its readings that are not justified by scientific observations. By them comparatively unimportant variations in blood-pressure are

sometimes considered very significant. They go beyond all our medical knowledge in the matter.

Such a tendency on the part of physicians to exaggerate the significance of their knowledge, when novelties are involved either in diagnosis or treatment, is not due in the great majority of cases to any deliberate purpose to deceive patients, but is just one feature of that proneness to display new knowledge that young persons, or older ones who have stayed young in mind, so often exhibit. They like to produce an impression, and this affords an easy way of doing it. Some of them like to clutter up their offices with large electrical machines or electrical apparatus (many of which have absolutely nothing to do with medicine, or have long since outlived their supposed usefulness), and others are always chasing after the latest novelty in medical practice, whatever it may be. They do not really think, but they are receptive for suggestions; and, if the agent of a manufacturing concern has a glib tongue, they will be using his machine on their patients the following week, just as they will be prescribing the latest drug that has come on the market, or the latest animal product of some kind or other that is being exploited in the advertising columns of certain of the less reputable medical journals.

As a rule, be careful of the man who chases novelties. These fall by the way, having as a rule done no good and usually no harm; but sometimes the

delay in getting at a proper mode of treatment while these novelties are being tried out on him is very detrimental to the patient.

## What is Hypertension or High Blood-pressure?

As to what constitutes high blood-pressure—that is, what index shall be taken as normal and what as abnormal—there is still some difference of opinion. When physicians first began to study blood-pressure, it was the custom to say that normal blood-pressure could be measured in millimeters of mercury, one for every year of life added to one hundred millimeters. According to that rule, at the age of thirty-five normal blood-pressure would be about 135. At fifty it would have risen to 150, and so on, though somehow the increase in blood-pressure was not expected to continue much after the age of sixty without being considered pathological. It has come to be realized in recent years that advancing years do not affect blood-pressure quite as directly as would be thus indicated. More or less normal blood-pressure is established shortly after the age of twenty, following the rule of one degree for every year above a hundred degrees as the index. The blood-pressure continues to rise a degree or so a year until, at the age of about forty, it is just below 140. A rise much above that figure is usually con-

sidered not quite normal. Normal average blood-pressure for the period after middle life is probably between 130 and 150. There are a number of people for whom even 170 or 180 degrees of blood-pressure does not seem abnormal. Their feelings are not disturbed; they have no serious symptoms; they live active, healthy lives, and now we know that many of them live to a good old age.

In a word, blood-pressure (like nearly everything else related to the health of humanity) is very largely individual. Old Dr. Parry of Bath used an expression that Osler, the distinguished American and English professor of medicine, often quoted. It has been quoted before in these papers but cannot be cited too often: "It is much more important to know what sort of individual has a disease than what sort of disease an individual has." It may be said that it is much more important to know what sort of individual has high blood-pressure than the extent of the high blood-pressure the individual has. High blood-pressure may have existed for a series of years without giving any symptoms, but, when the arteries begin to degenerate with advancing years, or when for some reason arteriosclerosis (that is, the thickening of arteries) comes on before the usual time (for a man is as old as his arteries), then there will be symptoms from his high blood-pressure. He will have that feeling of tension all over that people with blood-pressure complain of, and a tendency to head-

ache and sometimes to dizziness and spells of dimness of vision, though these are not so much due to high blood-pressure as to the failure of his thickened arteries to respond to changes of blood-pressure within the body.

Some recent reviews of the subject of blood-pressure serve to show mainly how little we know about it, and how many suggestions that have been made with regard to its cause and treatment have proved to be of no significance as our studies of the subject have continued.

First, with regard to *the cause of blood-pressure.* We know almost nothing about it. It is not due to the overeating of meat, though a great many physicians and popular writers on medical subjects have emphasized this so much that it would seem as though there must be no doubt about it. A number of people who have been very light meat-eaters during their lives, and even a few vegetarians (that is, men and women who have lived for twenty to forty years on nothing else but vegetables and milk and eggs), have developed abnormally high blood-pressure. On the other hand, high blood-pressure is not common among the Eskimo who live exclusively on meat, nor is high blood-pressure uncommon among the Chinese and Japanese laborers, who live almost exclusively on rice. Vladimir Stefanson lived for a dozen of years with the Eskimo within the Arctic Circle (for ten years of the time eating nothing but meat), and

yet he is in excellent health and strength, with normal blood-pressure and perfectly healthy kidneys. Above all, he did not suffer from constipation, though this is often supposed to be one almost inevitable result of living largely on meat. He is on record as saying that the Eskimo begin to suffer from constipation when they begin to live on a mixed diet. He says that they suffer from a number of other symptoms of ill-health just as soon as their diet takes in vegetables and cereals as well as meat. No broad conclusion should be drawn from this, but the observation serves to show how little we know about the effect of various ingredients in the diet, though, to listen to some physicians and dietetians talk about the subject, you could scarcely fail to be persuaded that we knew a very great deal of it. It is extremely important for us to realize the limitations of our knowledge. As Uncle Esek said: "It is not so much the ignorance of mankind that makes them ridiculous as the knowing so many things that ain't so."

While overeating of meat, or at least the regular eating of good meat portions three times a day, cannot be considered as a cause of blood-pressure, it seems to be clear that overeating in general does at least predispose to the occurrence of high blood-pressure. The vegetarian can eat too much, and the man or woman who takes a mixed diet may eat too much, though only rarely does the man who lives exclusively on meat eat too much. Overeating and

over-weight are the two things that are commonest in the history of patients who develop dangerously high blood-pressure.

It has been suggested that constipation (and the resultant absorption of toxic materials from deteriorating proteid and other substances in the large intestine) may be among the causes of high blood-pressure. This is that idea of auto-intoxication which has been used by so many superficial thinkers to explain nearly everything that is wrong with human beings. In recent years it has been suggested that insanity might be due to absorption of toxic materials from the intestines, and it has even been proposed to remove the large intestine entirely in a great many cases because of the evil effects it was producing. A distinguished London surgeon came to be quite sure that most of the diseases that mankind is heir to, were due to absorption of toxic material in the large intestine. He felt that nature was in process of eliminating that portion of the human anatomy by evolution, and he was perfectly willing to help her in the process so far as individuals are concerned.

As Dr. Preble of Harvard remarked, in discussing the question of the cause of high blood-pressure before the Rhode Island State Medical Society in June, 1927, there are entirely too many constipated people in the world who do not suffer from high blood-pressure to permit us to think that this is one of the causes or even a predisposing factor. Be-

sides, there are striking examples of patients who have suffered seriously from constipation for years, so that they had a movement only once a week or so, yet without any development of high blood-pressure. There was actually a French army officer who had a movement of his bowels only every three months or so, and then had to be helped artificially somewhat to have it; and yet he lived a perfectly normal life, and died of pneumonia when past sixty, just as some other ordinary mortals do, who have no such disturbance of intestinal function. Besides, there are a number of people suffering from high blood-pressure who have no history of constipation, and who apparently have had no symptoms of auto-toxemia of any kind that would lead one to think that this was a cause of the condition.

It was supposed for a time that high blood-pressure was compensatory for kidney insufficiency; that is to say, the kidneys were not functioning so as to remove used-up materials in the blood to the extent that they ought to, and in compensation nature raised blood-pressure in order that the blood thus flowing at greater pressure through the kidneys might have its impurities eliminated. Further observation and experience have not confirmed this idea, though it has many analogies in human physiology. For instance, it is generally felt now that fever, as it occurs in the infectious diseases, is really compensatory in the sense of representing an effort

on the part of nature to inhibit the growth of micro-organisms. There are a great many germs which grow very well at ninety-eight degrees that will grow ever so much less at 103° to 104°. Fowl have temperatures of 104°, and there are certain infectious diseases which they will not take. Pasteur showed, however, that if the feet of the fowl were placed in ice water until their general temperature came down to 98°, they would take these diseases to which they were immune before. Fever then, instead of being something to be dreaded, is rather an effort of nature to throw off disease. It is very probable that the heightened metabolism—that is, the increased interchange of nutritious materials in the tissues which occurs during fever—enables the individual to resist the disease better than at the normal temperature.

This idea of the compensatory significance of high blood-pressure remains one of the suggestions that thoughtful physicians like to retain; they feel that high blood-pressure in a great many cases is a natural reaction in the body which prevents the development of serious consequences that might prove even fatal. Just as with regard to the fever, however, too great an increase of it may prove serious. When our patients have a temperature above 104°, we take definite measures to bring down the temperature, even putting patients into cold baths, because high temperature causes serious wear and tear on the nervous system. So, when blood-pressure is too high,

we try to reduce it because it may produce serious results.

A certain number of physicians are quite convinced that high blood-pressure is due to oversecretion of certain of the ductless glands—or, as they are called scientifically, the endocrine glands. There are certain of the ductless glands (such as the suprarenals, little crescentic bodies which lie just above the kidney), the secretion of which causes an increase of blood-pressure. It does so by constricting the minute blood vessels. This would seem to be a very definite evidence of the reason for high blood-pressure. After careful observation, however, it has been determined that there is practically no possibility of the secretion from the suprarenals (or adrenals, as they are also called) being of such an amount as to cause an increase in blood-pressure. These are very small organs; they secrete only very minute amounts of the active principle which characterizes their activity, and this could not by any possibility rise to such an amount as would affect blood-pressure. In a word, what we have here is another theory, but not at all an observed fact; and all the best authorities are inclined to dismiss the idea of endocrine causation of high blood-pressure.

As to the treatment of high blood-pressure, there is a general consensus of opinion that hearty eaters who are overweight must be asked to limit their eating and gradually reduce in weight. There is

usually a corresponding reduction in blood-pressure, and the patient is sure to be much more comfortable with lessened eating and lessened weight. This must not be taken to mean, however, that everyone with heightened blood-pressure must limit his eating and proceed to come down in weight. Thin people who are already under-weight will very probably be harmed in that way. This is true also with regard to Bright's Disease in its various forms, for, if nutrition is reduced to a marked degree, the kidneys themselves will suffer from malnutrition, and will be able to resist the invasion of the disease much less effectively than before. Whatever it is that produces an increase in blood-pressure, remains uncertain; but control of it so far as that is possible is dependent on the reasonable nutrition of the body, and patients are likely to be harmed if their nutrition is very much reduced. In this matter it is particularly important to realize that the most valuable advice for health is furnished by the old proverb: *In medio tutissimus ibis*—which may be translated freely: "Avoid extremes and keep in the middle of the road."

As regards the drug treatment, it is generally recognized by physicians who have had most experience with high blood-pressure that we have no remedy that will act directly for the cure of the disease or the relief of its symptoms. If for any reason blood-pressure becomes very high, there are certain of

the vaso-dilator drugs (medicaments which cause the arteries to be dilated) that have some effect, though this effect will not be lasting. Bleeding often does good in these cases, and undoubtedly one of the reasons why venesection (the practice of bleeding at regular intervals) was popular in the old time, was because older people suffering from a tendency to high blood-pressure (as well as actual blood-pressure patients) were relieved in this way to a marked degree.

The one drug that seems to do these patients good in the largest number of cases is the simple old-fashioned bromides. In a certain number of patients suffering from high blood-pressure there is a history of the very free use of salt on the food. This has sometimes given rise to the opinion that salt has much to do with increased blood-pressure, though this idea has not been confirmed by observation. If people are taking salt very freely as certain individuals do (fairly pickling their food with the amount of salt they scatter over it), this is an abuse that ought to be eliminated. The substitution of sodium bromide for sodium chloride (that is, common salt) even at the table may sometimes be useful in these cases. Salt seems to have a tendency to increase arterial and also muscle tension, while the bromides have a definite tendency to decrease it. The bromides act as a general sedative which soothes the organism and keeps the mind from

being disturbed about things that would otherwise prove sources of worry.

Worry is one of the worst things for high blood-pressure, and nothing is more serious than the patient's own worry about his condition. A great many people who do not know they have high blood-pressure go around with blood-pressures of from 200 to 250 without being at all disturbed. Sometimes their blood-pressure may be even higher than this and yet be discovered merely by accident, or when they are being examined for life insurance or something of that kind. Once they have been told about it, however, they begin to have symptoms, and there are a good many complaints. It is extremely important, therefore, for patients not to be perturbed about it, and there is no doubt that a great many patients live for years with marked high blood-pressure without any serious symptoms, or any crippling conditions that keep them from being able to go on with their ordinary occupation

It is extremely important that people should not try to work strenuously when their blood-pressure is high; they should take things quietly, and should not devote themselves to occupations that have much excitement involved in them. It would not be well for a priest who has high blood-pressure to take on himself the burden of building a large church. If, however, he has a certain placidity of disposition with regard to business matters and is not much disturbed

by them, it would probably be better for him to be occupied with building operations of some kind (provided he employs a good contractor and enjoys a good financial condition), than if he were to try to do nothing, and thus furnish an opportunity for intrinsic worries of all kinds to disturb him. While men must not overwork, they must not underwork. Rest is a very valuable remedy for all sorts of conditions in the human body. It is as valuable as opium, but probably as dangerous. We get used to it and crave more of it, and the habit increases until we are made quite miserable by it. We cannot do nothing, and we manufacture a certain amount of energy every day which has to be used up in work of some kind, or else it will be used up by short-circuiting within us. When that happens, various nervous symptoms develop and life is made very miserable, and the worries consequent upon this state of affairs will be worse than those that might develop even from building a church.

A great many people have been disturbed much more than was justified by our knowledge of the significance of blood-pressure by being told that they were sufferers from it. Especially is this true with regard to blood-pressure at 170 or 180 in men beyond middle life. Some of them have been very much inclined to think that this portended proximate demise, or almost impending death. The relationship between the two is not unlike that between in-

somnia and insanity. A great many people who suffer from insomnia are very much inclined to think that, if they continue to lose two hours of sleep every night, it will not be very long before they will be insane. There is no direct connection between insomnia and insanity, however, and any number of people who have lived long lives without suffering mental eclipse in any way, give a history of having suffered from insomnia at various times in life. On the other hand, people who are going insane are sometimes very wakeful; but it is insanity that produces the wakefulness, and not wakefulness the insanity.

There are other conditions, besides the mere existence of high blood-pressure, which produce the symptoms often attributed to high blood-pressure alone in a great many of the patients. It is the other pathological conditions within the body (that is, the condition of the kidneys, the state of the arteries, the healthiness or unhealthiness of the liver, and the sturdiness of the heart) that are even more important to be considered than the blood-pressure. A man who is organically sound, need have but little solicitude with regard to his blood-pressure, unless there are very definite symptoms being produced by it, and if it is sure that these symptoms are not the result of over-solicitude with regard to his high blood-pressure.

A great many patients make, or at least exagger-

ate, their own symptoms in this regard and render themselves miserable. That is one of the reasons why it is of dubious benefit to inform these patients with regard to their condition. Physicians are much more careful in this matter now than they used to be, and high blood-pressure is not nearly so much the bugaboo it was said to be, but men and women may still be rather seriously disturbed. I remember some twenty years ago, when doctors were just beginning to use blood-pressure instruments to a certain extent, a woman patient came to me very much scared by the fact that a physician told her that she had high blood-pressure, and had practically given her the impression that she must not expect to live very long. Indeed, as an old friend of the family, he suggested that she had better put her affairs in order in preparation for the summons that might come at any time. It is easy to understand under the circumstances that, when she came to me, she was very much disturbed. She felt that she surely did not have more than a few months or at the outside a year to live. Her physician had found her blood-pressure to be about 170. Laboring under excitement, as she was as the result of her disturbance of mind, I found that her blood-pressure was 180. I did not tell her that, but assured her that there was no reason for the bad prognosis, and that there were large numbers of people who had blood-pressure even higher than that and yet lived on

through many years. She came to see me a number of times, and it was interesting to see her blood-pressure gradually decrease. I never succeeded in getting it below 160, however, but I told her that it had come down twenty since I had seen her, and gradually she became more satisfied in mind. At that time she was about sixty years of age, and she is still alive at the age of eighty-two. It is true that some ten years ago, when she was past seventy-two, she had a slight stroke. Some five years later she had another stroke. She recovered sufficiently in each case to be able to get out, though she had to have an attendant after the second stroke, and had required a cane after the first one. She had a third stroke but still survives, though of course she may go at any time.

Here was a typical example of a patient being needlessly disturbed, mainly because her physician—who died from pneumonia the year after he so upset her—was intent on the significance of the new toy he had only recently learned to employ. She was made quite miserable for several years, and continued to be very solicitous about herself for all the rest of her life. I believe it was St. Anthony the Hermit who said, after having lived seventy years as a solitary and enjoyed abundant opportunity for introspection, when he was asked what was his worst trouble: "Oh, I've had lots of troubles, but most of them never happened."

It is extremely important to realize the truth of this and to keep from worrying about conditions. Some patients want to have their blood-pressure taken every few days. Almost needless to say, the slight variations of blood-pressure that may be noted at such short intervals mean nothing at all. Surely, there is no need for blood-pressure being taken more than once a month—or perhaps once a week, if there has been some critical emergency connected with blood-pressure. Not long since I heard of a man rushing into a doctor's office and saying: "Take my blood-pressure, I haven't had it taken in three days." He had been on the train from Florida. Down there a very zealous physician had been taking his blood-pressure every day and making a great deal of the slight variations in it, changing the man's mode of life almost from hour to hour as if that could do any good for the blood-pressure.

## Hypotension or Low Blood-pressure

A certain small number of people exhibit distinctly low blood-pressure; that is to say, their systolic blood-pressure is not more than 110, and may be as low as 100 or slightly lower. We are not sure about the significance of high blood-pressure, but we are still more in the dark as to the meaning of low blood-pressure or, as it is called, hypotension. A good many people have been rather

seriously disturbed when they were told that they had low blood-pressure. For a long while physicians were dubious about this state, and were inclined to think that low blood-pressure had almost as serious a significance as high blood-pressure. There is a serious fatal disease (Addison's Disease) which is characterized by very low blood-pressure and by the occurrence of pigmented patches at various parts of the skin surface that are the subject of irritation (as, for instance, the waist line and the wrist and the edges of the tongue). This is due to a degeneration, usually tuberculous in character, of the suprarenal bodies (or capsules, as they are sometimes called).

Essential hypotension, or low blood-pressure without this degeneration as a cause, is not at all related to Addison's disease, and has no such serious prognosis. On the contrary, the insurance companies declare that *hypotension is an asset* in so far as expectancy of life is concerned, and that low blood-pressure, instead of shortening life, is an index, as a rule, that life will be longer than the average. As insurance companies are willing to bet on their opinions, and they would not be able to continue in business if they were not reasonably sure as to what they were betting on, this may be taken as the best possible summary with regard to the meaning of low blood-pressure in relation to length of life.

People who suffer from low blood-pressure often

are not aware of that fact until it is called to their attention by an examination made for some other purpose. Those who know that their blood-pressure is low, seem to find that on damp, dark days, when the barometer is low, they feel rather lacking in energy and power. As such days have in a good many cases a similar effect on perfectly normal individuals, however, and somewhat the same complaints are made by sufferers from high blood-pressure as regards these dark rainy days, it is extremely dubious whether there is any connection between the low blood-pressure and the feelings that are noted. It is probable that they are more largely due to mental states produced by the gloomy weather, though there may be no consciousness of it, than to any physical depression consequent upon the presence of low blood-pressure.

## CHAPTER VII

### Medicines and Medicine

In connection with the Sesquicentennial Celebration of the Declaration of Independence there has been a reissue of what is known as "Washington's Copybook." This is a note-book written in Washington's own hand containing "110 Rules of Decency in Behavior and Conversation." One of the most interesting of these rules is No. 38, in which the youthful Washington copied a very old maxim which probably dates from ancient times. It runs as follows: "In Visiting the Sick do not Presently Play the Physician if you be not Knowing therein." They used capitals much more freely in that day than we do now, but they succeeded in emphasizing very well what they wanted to say, as can be readily seen from the rule in the form in which it is printed.

A good many people are tempted to "play the physician." It is surprising the ease with which some people bring themselves to give their friends and acquaintances suggestions as to how to treat various ills they may have the matter with them. What is almost more surprising is the readiness with which people accept suggestions made in this way by some-

one who has no background of training or knowledge that would justify the advice. If we have a valuable watch, we do not let anyone except a watchmaker set about repairing it. When there is anything the matter with it, we refuse to entertain the suggestions of every busybody who wants to have a look at it. We want no "tinkering" with it. We submit it to an expert. Of course, if the watch is of no particular value and we do not care for it very much, we may be willing to let every Tom, Dick or Harry fool with it. The same thing is true as regards an automobile. If we have a good car, we want it handled right, though a second-hand "Tin Lizzie" anybody may tinker with.

It all depends, then, on how much you think of your health and the very wonderful mechanism which we call our body, whether we will let people "play the physician" with regard to it. In so far as we ourselves are concerned, we are surely aware how little we know about it, and it is much better for us not to think that we can do things for it when it is ill, unless we have been very specially trained; and even then we ought not to forget that the old maxim, "A man who is his own lawyer has a fool for a client," is not any truer than the other expression, "A man who is his own physician has a fool for a patient." Lawyers do not even draw up good wills for themselves, and they are notoriously bad businessmen; and physicians make very poor

diagnoses of their own cases, and are very negligent about their treatment. If you want long life then, do not "play the physician."

This is an excellent rule for all times, and one that is very much needed. There is an old-fashioned expression which declares that "a man is a fool or a physician at forty." This apparently would imply that any man who has not learned to take care of his health by the time he is forty, is lacking in intellectual capacity. The maxim, however, is not one that any physician would care to use with a serious meaning. As a matter of fact, as physicians grow older in the practice of medicine, they learn to appreciate very well how little they know about the important problems of human health that come before them for solution. It is only the recent graduate who thinks that he knows a great deal about medicine, and who feels that it will be only a few years after his entry upon the practice of medicine before he will know so much about the subject as to be able to solve all the human problems of disease that may come before him. Of course, this attitude of mind is not solely peculiar to the young physician. Young people generally are quite sure that they know a great deal more about most things than they really do. I often take the opportunity at commencements of saying to high-school graduates particularly that, if I knew half as much now about almost anything as I thought I knew about every-

thing when I graduated, the world would be making a wonderful advance in knowledge. As we grow older, the principal thing that we learn is how little we know, and how much there is we would like to know.

It has always seemed to me particularly important that priests should not assume that they know a great deal about medicine as time goes on. I have heard lay people say that of course, as priests see a great many sick people, they ought to know almost as much about disease and its treatment as the physicians. Sometimes I have the feeling that some priests accept this estimate of their medical knowledge, and are tempted to think that they do know more about medicine than the great majority of mankind. Perhaps they do. I know, however, that with regard to the question of long life it is rather important for priests not to assume that they know much about their own health, because that is a dangerous assumption. Even physicians have learned that it is extremely important not to trust their own judgment with regard to their own health. Owing to the circumstance that I have written a good deal for the medical magazines and have read papers before medical societies, I have been consulted by a larger proportion of physicians as patients than most men. My medical practice has been rather limited, but priests and physicians have come to me a good deal, and I have been struck by the fact that, even when

he knows a good deal about medicine and may indeed be a very successful practitioner of medicine, a man's judgment with regard to his own health is likely to be very fallacious.

In view of this well-known fact founded on the experience of many physicans, it will not seem impertinent to suggest that undoubtedly one of the minor, though rather important, reasons why many priests are not so long-lived as they should be, is that they take too much medicine, or—perhaps it would be better to say—take too many medicines. Not a few of them do this entirely on their own recognizance, though some of them like to ask physician friends occasionally for some advice that does not take quite the form of a prescription, and they proceed to follow it at least to the extent of getting another bottle of medicine. Owing to some very cordial invitations and offers of hospitality on the part of parish priests in connection with my lecture work, I am sometimes permitted to enter the penetralia of priests' houses. Without wishing at all to betray any personal secrets or abuse hospitality by the revelation of what ought to be a matter of strict confidence, I may say that it is not infrequently a source of surprise to me to note how many medicines some of my clergymen friends keep near them. A few of them might be said to keep a regular medicine closet quite well stocked. A great many of them regularly take proprietary medicines of one kind or

another (the so-called patent medicines), and then some of them have favorite prescriptions, or drugs, or modes of treatment, that they indulge in at various times.

In this they display a confidence in medicine that physicians who have devoted themselves very faithfully to the study and development of medical science do not always share. I shall never forget an occasion when, while I was still a medical student, I met one of the most distinguished physicians of this country with a bottle of medicine in my hand. He asked me: "For whom is that?" When I said that I was going to take it myself, he commented: "Thank God, there are some people who still have faith in medicine." As a word of explanation he added: "You know it takes me more than a week to make up my mind to take a dose of physic." Of course, he was looked upon as a therapeutic nihilist to a certain extent—that is, as one who was not ready to accept every wind of new doctrine that blew in the matter of curative remedies. I may say that most of the remedies he did not care to use thirty years ago, no doctor would care to prescribe now. For remedies come and go in the history of medicine in very striking fashion, and the medicine that is hailed as marvelously curative in one decade, is sometimes quite without any prescribers in the next.

The French have a habit of saying that the therapeutics of any generation—that is, the remedies

which are employed confidently for the cure of disease—are nearly always absurd to the next generation. Not a few remedies that even distinguished physicians employed regularly a generation ago, are scarcely ever used today. They represent "cures that have failed," of which the lumber-room of medicine is so full.

There is a well-known expression that, the longer a man is in medicine, the better he learns the uselessness of a great many drugs. In spite of this very conservative feeling on the part of physicians of distinction and careful observation, a great many intelligent people use all sorts of medicines with the greatest possible confidence. Some priests seem to be particularly addicted to the idea that they can prescribe for themselves, or that they can select the remedy that will do them good. As already said, no physician ever cares to prescribe for himself—or, as a rule, even for his family—because he knows how easy it is for his feelings to be deceived. He therefore consults another physician about himself and those who are dear to him.

Of course, some physicians insist on taking drugs of their own selection, and not a few others are continually trying on themselves the latest compounds that have been put on the market, or that have been brought to them as samples, with alluring literature attached. But the drug-taking physicians are voted by the medical profession generally to be

foolish for the very reason that they insist on treating themselves. If this is true with regard to the physician who has spent five years in the study of medicine, and many years afterwards in keeping abreast of medical knowledge for his practice, it is easy to understand how much more it is likely to be true with regard to anyone who has not had these advantages. A man may be a fool and a physician at forty, if he thinks himself capable of prescribing for his own ills. It is much better to let medicines alone, unless they are prescribed by some one in whom you have good reason to have great confidence. It is important, too, that you should formally become a patient, and not merely ask the question: "What do you think might be good for this or that?" The diagnosis is the most important part of a physician's work, and it is much better if a patient does not assume the knowledge necessary to make the diagnosis.

Medicines are at best only palliative and meant to help nature, and a great many of them have been quite useless, and not a few of them have done harm. Dr. Oliver Wendell Holmes (who, when a young man, had been an active practitioner of medicine and was for some twenty-five years professor of anatomy at Harvard Medical School) once said that, if all the medicines that had ever been prescribed were thrown into the sea, it would probably be better for mankind and worse for the fishes. The fishes would

probably not have been much hurt by the medicines, for they would be diluted to innocuousness by the volume of the sea. Fortunately too, most of our medicines do no harm, though they unfortunately tempt people to think that they can develop appetite without exercise or fresh air, or that they can do without such regulation of their diet as will cause them to have regular movements of their bowels without taking laxatives or injections, or having recourse to other remedial measures. The medicines that work while you sleep are likely to do much more harm than good in the long run, because they take the place of such proper regulation of life as would enable you to get on without their adventitious help. And it is "the long run" that counts for long life.

It is surprising how many priests insist on taking large injections of water (internal baths, as they are called) for the cleansing of their lower intestinal tract. Many of them will argue very persistently regarding the necessity for internal cleanliness as being just as important as external cleanliness. We wash the outside of our bodies every day; why not the inside? A dear old physician used to say that the most plentiful thing in nature was water, and it was meant to be used abundantly both internally and externally. However, if we took exercise properly, our natural thirst would tempt us to use water internally in the quantities needed for our economy. Without that exercise we ought to establish habits

of drinking water at regular intervals so as to be sure to supply the system with all that is needed. He used to add that, if nature had intended us to take internal baths at regular periods, she would surely have facilitated it by equipping us with a fountain syringe or making some similar arrangement to supply our natural needs for cleansing fluid.

It is often said that physicians' families take the least medicine. Of course, this may be another illustration of the tradition that the shoemaker's children are the worst-shod in the town. However, I think that, as a rule, physicians do not give much medicine to their own folks, but prefer to have someone else do the prescribing, and they do not like to bother a busy brother-practitioner unless it is necessary. There are a good many people who feel that they ought to take medicine whenever they get anything the matter with them. If they ought to take medicine, then they ought to have a doctor's advice with regard to it. I have known them to say, however, that they did not think they were ill enough to see a physician, and then I have always said that they were not ill enough to take medicine.

There are some affections that are supposed to be such commonplaces that almost anyone may treat them. Coughs and colds, for instance, are supposed to be of this nature. In recent years, however, we have learned that these supposedly minor affections are often the forerunners of rather serious complica-

tions. We may have a slight sore throat that will prove later serious for the Eustachian tube and then the ear. We may have a nasal infection that will lead to infection of the sinuses with rather serious results. Tonsilitis may be the forerunner of rather serious infection of the joints. The so-called common cold may prove, if there is fever with it, to be important. When there are germs at work disturbing the temperature, no one can tell how far they may go. It is better, then, not to take any chances in the matter by empirical treatment. A number of people think that they have remedies that will break up a cold, but no doctor knows any such remedy. I think that every physician has the feeling several times each winter that he is on the verge of a cold, and feels that he probably ought to take something for it; however, he neglects to do so, as a rule, and then finds the next day that it has cleared up of itself. Had he taken any remedy the night before, it would have seemed to break up the cold. The idea behind the expression, "break up a cold," is utterly out of harmony with the science of pathology. Quinine and whiskey not only do not break up a cold, but in sensitive people actually produce headache and a sense of lassitude the next day with other disturbed feelings due to the remedies, but supposed to be due to the presence of the cold.

A great many people, including not a few priests, have favorite cough medicines. Most cough medi-

cines contain a certain amount of opium, and, while this, as a rule, is nothing more than paregoric since the narcotic laws have come in, even that is sufficient to lock up secretions and do harm rather than good. It quiets the cough, but this is in most cases a natural reaction that helps us to dispose of material that nature wants to remove from the body. To keep the cough from accomplishing that purpose is to run a certain amount of risk. Of course, if coughing disturbs sleep at night or if it would interfere with the saying of Mass, then something should be taken, but only as the lesser of two evils. As a rule, physicians themselves take very little medicine for a cough, and, as we give ever less medicine for cough in tuberculosis, the use of cough medicines has diminished very much. Drinking freely of water, especially of hot water (not lukewarm) or of hot fluid (such as weak tea), is good for a cough, and so are certain other mechanical aids to the circulation. For instance, if the sheets are warmed before one goes to bed, there is not that tendency to cough so often noticed especially in damp weather. A hot foot-bath going to bed (the old-fashioned remedy) is still considered excellent by many practical physicians. Drugs do more harm than good for coughs.

A great many clergymen take laxatives rather freely. There is no reason in the world why most people should ever take laxatives. If foods containing residual material (bran, string beans, lettuce,

spinach, cabbage, cauliflower, whole wheat bread, corn and bran muffins) are eaten, the bowels will move without any trouble. This is particularly true if a reasonable abundance of water is taken during the day. This should be not less than a quart of water taken at various times (at least an hour away from the meals), besides the taking of a reasonable amount of fluids at meals. Of course, where there has been a habit of constipation that has lasted for years, one must not expect that diet and water will correct it without any further aid, but usually there is no difficulty in forming a habit, and that is the all-important matter for the correction of chronic constipation. The free use of heavy oil (petroleum in one form or another) which has come in in recent years, is not advisable. It leads to habits of sluggishness in the bowels, because food materials become covered with the oil and slip by without any need for peristalsis. Whenever any activity in the body is discouraged, the organs associated with it always give up their work to some extent at least. As a rule, thin people need no remedy of any kind for constipation. All they need is to eat more. They are not eating enough, and that is the reason why their intestinal functions are hampered.

## CHAPTER VIII

### Fads and Frills

Occasionally one finds that priests or religious are taking some new-fangled remedy supposed to be good for some kind of ailment, which at least they think they have. For a while some years ago rheumatism remedies were a great fad among the clergy. Whenever they had a pain or an ache of any kind, they went and bought some of the latest cures for rheumatism. Rheumatism is a word that covers a multitude of ills of many different kinds. Pains and aches, especially if they are worse in rainy weather, are said to be rheumatic, although everything from flat foot to spurs on the heel and bad teeth and infected tonsils may produce painful conditions worse in rainy weather. Remedies that cure the pain of these conditions are merely palliatives, and keep patients from doing something for the underlying condition which needs treatment. Teeth and tonsils, particularly, need seeing to, and of course the foot-arches need most careful attention. If there is any serious breakdown of the arch, do not buy arches for yourself, nor a particular kind of shoes because somebody recommends them. Your feet are

extremely precious: take care of them, for on their good condition depends the exercise you take, and on that depends good health. No wonder one of the insurance companies has issued a little booklet on how to care for the feet, because they know that good feet are precious to tempt a man to exercise; bad feet keep him from exercising, and lack of exercise shortens life, and matures policies sooner than is necessary.

A certain number of priests take headache tablets rather freely. Aspirin is a favorite with some, phenacetin with others, and then there are devotees of pyramidon or migraine tablets and the like. A great deal of harm has been done by these, though they are valuable under certain circumstances. A headache always means something; some function or other in the body is disturbed. Occasionally, it is the earliest symptom of Bright's disease. It ought not to be masked, then, by some headache remedy; its real cause should be investigated and if possible removed, or at least life habits regulated so as to accommodate eating, resting and working conditions to the state of organic health.

Occasionally, priests get the idea that fasting is a very precious mode of regaining health, and above all of correcting digestive disorders of various kinds. Men, especially those of sedentary occupations, as a rule eat more than is good for them, but there is just one way of deciding whether they are eating too much

or too little, and that is by consulting their weight. If a man is over-weight for his height, he is probably eating too much. If he is under-weight for his height, he is surely eating too little. In the one case, there ought to be a reduction in the diet; in the other, addition should be made to it. A great many thin individuals who are suffering a good deal from digestive symptoms owe their trouble to the fact that they are not giving their digestive organs enough to do. It is surprising how commonly this is the case among thin people with a tendency to over-solicitude about themselves. Fasting will not do these good, nor will it do the stout people any good, unless by fasting is meant abstention from food to the extent that will bring about some reduction in weight. To stay two or three or more days without food is always more than a little dangerous, and there is not the slightest real good that can come of it. The body is almost fool-proof so that probably it takes a good deal of fasting to injure it seriously, but complete abstention from food leaves one liable to infections by various microbes which we carry round with us, for it lowers our resistive vitality.

Medical science has not quite determined as yet just what causes ulcer of the stomach, but one of the reasons is thought to be that the ulcer begins in an effort of the stomach to digest itself, whenever it does not receive sufficient food to keep it properly occupied. After all, the stomach is only meat tissue

not unlike certain meats as tripe (pig's stomach) that we usually eat, and it has always been a scientific mystery as to why it did not digest itself. The ultimate reason seems to be that the life-force in the living stomach protects it against digestion. When that life-force or vitality is very much lowered by lack of food, the stomach may make more or less serious attempts to digest itself, and this in delicate anæmic persons causes the so-called peptic ulcer. The other cause that is surmised at least for the occurrence of ulcer is the taking of very hot fluids (as, for instance, coffee or tea, soup and sometimes hot water) on an empty stomach. These theories of the causation of ulcer represent interesting warnings with regard to the taking of food and drink.

There is another reason why the stomach should be asked to take food in a more or less natural state, and that is that there must be enough of residual material—or roughage, as it is called—taken with the food so that there may be sufficient to occupy the intestines' attention and so stimulate intestinal peristalsis. Without this there will not be regular movements of the bowels, and good health requires that there should be intestinal evacuations at least once or better twice a day.

The taking of medicines and the pursuit of fads of various kinds in medicine are almost sure to do much more harm than good, and undoubtedly many people have impaired their vitality and shortened

their lives in this way. As a rule, priests have a good deal of common sense in their attitude to physicians and medicine, and this fact has been noted by distinguished medical practitioners in hospitals and private practice who have been much in contact with priests. Osler, who was probably the greatest teacher of medicine of his time in the English-speaking world and perhaps in the medical world of his day, once declared that it had been his experience that, the nearer a man was to the Council of Trent, the nearer he was likely to be to orthodoxy in medicine also. Osler had seen a great many Protestant ministers stampeded by one fad or another in medicine, and by all sorts of quacks and charlatans, and it was a pleasure to him to acknowledge that the Catholic priest did not have this tendency. Good theological and philosophic training had given the latter a conservatism that saved him from chasing novelties just because they were novelties. Much more than ninety-nine out of every hundred novelties in medicine prove to be of no significance when their true status is worked out.

I am not sure that Osler would be quite so favorable in his opinion of some of the younger priests of our time. A good many of them have a tendency to think that, from their own observation and the cures of patients which they have witnessed, they have found that certain new-fangled methods of treating disease must represent wonderful new dis-

coveries in therapeutics. Every now and then one finds a young priest who has been cured himself by a chiropractic or an osteopath, or oftener one who is ready to tell the story of some of his relatives or friends who have been so cured. He is, therefore, a convert to the new drugless healing or system of medicine.

A little knowledge of the origin of osteopathy might be of value in enabling them to appreciate the significance of this system of healing. Dear old Dr. Still, the inventor or discoverer of this method of treatment, was the son of an evangelizing exhorter who used to stage wonderful revivals down in the Kansas district before the war. Dr. Still himself never studied any medicine (he said he was in attendance at a Kansas City school for a while, but there is no record of that fact), and learned all that he knew about the human body from the study of some bones that he found in an old Indian graveyard not far from where he lived. Having learned to put these together into a human skeleton, he thought that he had learned all that was necessary to treat human disease. Knowing only about bones, he attributed all disease to bone troubles, and particularly to subluxation of the spinal vertebræ, which interfered (so he said) with the passage of nervous impulses and perhaps also with the circulation of blood in the blood vessels that find their way in and out of the spinal canal. What is perfectly clear, how-

ever, is that he was sure that this causation for disease—all disease—had been revealed to him from on High, as also the method of treating disease by adjustments of the spinal vertebræ. We have his autobiography in which he uses the name of God very freely; he manifestly considers that he was on terms of very great intimacy with the Lord in this regard, who had chosen him as a special intermediary to bring healing to mankind.

According to him, all the medical knowledge that had been obtained through the development of the science of bacteriology was quite useless, if not mere twaddle. Subluxations in the spinal column were responsible for the occurrence of typhoid fever as well as of dysentery. His first successful experience of the new healing was a cure of the latter disease in his own person. Hence, he was quite sure of the truth of his ideas. For Dr. Still, then, Pasteur was a mere charlatan; Lister a poor man who fooled himself into thinking that he had conferred a great benefit on mankind by making surgery ever so much safer than it had been before. Of course, Dr. Still knew that all surgery was a mistake, and he used to proclaim that God had never intended that men, and above all women, should be cut up like hogs.

In bidding his "diplomats"—as he called those who received their diplomas from him—goodbye, when he dismissed them with his address on commencement day, he used to remind them not to for-

get that there is one God, one Faith, one Baptism, and one mode of healing all disease—osteopathy. I have always felt that Dr. Still ought to have been considered, not as the inventor of a new method of physically healing disease, but as another one of the divine healers to whom have been revealed the secrets of healing disease. We have had any number of them in this country. Andrew Jackson Davis, the Seer of Poughkeepsie, is a striking example of them. Some seventy-five years ago he had an interview one day in a graveyard—ominous place though it might seem to be to go for medical lore—with Galen (the great Greek physician who was medical attendant of the Emperor Marcus Aurelius in Rome towards the end of the second century of the Christian era) and with Swedenborg (the great Swedish mystic of the seventeenth century). Swedenborg gave him the secret of diagnosing all disease, while Galen, out of the depths of his wisdom as a great human physician and with the knowledge he had secured ever since in the world of the spirits, taught him how to cure all disease. Davis made a great many "cures." He was once invited to talk before the United States Senate, and came near being selected as a sort of physician extraordinary to the United States because of the great impression produced on our Senators by the account of some of his cures. Fortunately, we were spared that through the sense of humor of that great Irishman, Senator Shields, who had the

unique privilege of representing three different states at different times in the United States Senate. Andrew Jackson Davis degenerated into just a conventional quack, doing and writing all sorts of things for a living, and actually living on into the twentieth century, still with new missions from on High that towards the end, however, attracted very little attention.

Lest it should be thought that the people of the mid-nineteenth century were more susceptible than we are in our time to the representations of such healers with celestial missions, it may be well to recall that in the twentieth century Alexander Dowie, declaring he was Elijah or Elias returned to earth so that he might prepare the way for the second coming of the Lord, touched and healed according to his own claim some 200,000 people. There is no doubt about his "touching" them very effectively. Some of them came and gave him all the money they had in the world, because they had been "cured" by him and were sure, therefore, that he *must* have a mission from on High. They came and lived with him at Zion City, the new Jerusalem, half-way between Milwaukee and Chicago. The deep cloud under which the last months of Dowie's life were passed, if nothing else, makes it quite clear how very little of anything like other worldly assistance there was in his healing. He was, however, scarcely dead before Francis Schlatter out in Denver announced that he

was sent to heal the people, and they came and he healed them. After a while there was a line four blocks long waiting to be touched and healed by the new prophet. He got into trouble with the United States postal authorities for sending cheap handkerchiefs through the mail at ten dollars apiece, which were supposed to cure as effectively as the touch of the prophet himself. As the Postmaster General declared that this was a fraud, a fraud order was issued that gave a black eye to Schlatterism, but he continued to heal people until his death a few years ago.

When people say to me: "Well, but what of these wonderful cures worked by the osteopaths on patients who have been suffering from pains and aches and lamenesses for years and have made the rounds of doctors in vain? Surely they indicate that there is some wonderful new discovery or invention in healing at work." I always ask them: "Well, what about the cures made by Andrew Jackson Davis and Alexander Dowie and Francis Schlatter? They 'cured' exactly the same sort of chronic cases. Many of their 'cured' patients had been to a number of physicians without relief." After all, Christian Science, which is the only religion in the United States besides Catholicity that is constantly growing in numbers, is founded entirely on healing. Its membership is composed largely of presumedly intelligent and supposedly well-educated people. They have either been

healed themselves, or they have seen their friends healed through the influence of Mrs. Eddy's teaching. Mrs. Eddy proclaimed that there is no such thing as matter, and that disease is only an error of mortal mind. You cannot have anything the matter with you, because, as there is no matter in which to have anything the matter with you, how can you have anything the matter with you? Such teaching seems entirely too naïve and childish to have any effect on human beings who have any power of thought for themselves, and yet Christian Science continues to claim new converts every day, and is gaining in prestige all the time in our country. They are building Christian Science temples in all of the large cities, many of which are handsome structures, more beautiful almost than any of the churches that are being built in our day, except some of our Catholic churches. Christian Science has gained a foothold even among our Jewish friends, so that to hold the Jewish women particularly a form of Jewish Science has been invented. It has gained a foothold also in other countries—in England, in France, in Germany, even in Italy—so that editions of certain of the Christian Science publications are issued in many languages.

Whenever there is question of a priest favoring some of the new-fangled methods of healing, he must not forget that many of these, like osteopathy, have a certain mystical element. Discoverers of new methods of healing are prone to feel that it was

because of some special favor from on High that they were inspired with the thoughts of the new healing. That, as we have seen, was true with regard to osteopathy. Chiropractic is only a diluted osteopathy, though, if one were to listen to some of the definitions of this mode of healing that have been given by practitioners seeking recognition for their cult from state legislatures through the country, we would have to believe that it was a new system of philosophy and biology and something very like religion. The osteopath has to study the sciences related to medicine for some four years at least. No one has ever been able to find out how long a chiropractic has had to study before beginning his practice. Some of them have been known to be only a few months away from such trades as shoemaking or tinsmithing or clerking in a hardware store before they put out their sign, and proclaimed themselves ready to heal all the diseases to which mankind is heir by means of adjustment of the spinal column and of certain organs of the body that need adjustment.

Of course, the chiropractics make "cures," but then ailing people have been cured of long-standing ills by almost anything under the sun. When they were first invented, little Leyden jars cured all sorts of patients. What we would consider little toy electric machines cured many thousands of people in the eighteenth century. Magnets have cured people

whose number was legion, though it is well known that magnets have no influence of any kind on human tissues. Elisha Perkins with his tractors cured a lot of people suffering from all sorts of diseases, though we have the tractors now in our medical museums and there is not an ion of electricity nor a trace of magnetism nor anything else in them. The proverbial dead mackerel is very much alive compared to Perkins' tractors, and yet they "cured" many thousands of people in our country and over a million of people (it is said) in England.

The field of cures is very slippery ground for anyone to invade. This particular department of medicine is more full of delusions and opportunities for deception than any other. It is extremely important, then, for priests not to allow themselves to get lost in it. This is true, not only for themselves and their health, but also for the sake of others. If, with all the faithful study of disease by physicians, the advance of medicine and therapeutics is so slow, and so often likely to lead into blind alleys from which we must simply find our way back, it is easy to understand that the pursuit of fads and fancies and novelties of all kinds in medicine is perilous indeed. People are likely to be deeply influenced by what priests think about such things, so that Catholic clergymen particularly bear a heavy burden of responsibility lest they should lend a very ill-merited prestige to new-fangled modes of healing.

Something of the same thing is true with regard to the printing of the advertisements of healing remedies and methods and healers in our Catholic papers. They carry the prestige of religion with them, and people accept their advertisements as carrying with them a certain approval of the material advertised. That is why so many of the quacks and charlatans in medicine are ready to pay extra prices for advertising space in Catholic periodicals, because they know that they will get it back from dupes who are over-solicitous about their health. It is important, then, that religion should not be permitted to become mixed up in any way with such things. Already religion has to bear the burden of healers of all kinds, who are making religion absurd by their claims of cures which are only mental effects produced on certain susceptible people, who have suggested themselves into various ills and can only be cured by some contrary suggestions.

People often say to me: "Isn't it wonderful the way the mind cures the body!" And I say in reply: "No, that's not what is wonderful. What is really wonderful is the way the mind produces symptoms in the body, for the mind can produce the symptoms of any disease, though not the disease itself." *Whenever the mind produces the symptoms, only the mind can cure them.* This is not a question of imaginary disease, for I never use that expression. It is not the imagination, but the mind. By thinking about

a particular organ or tissue, you can produce symptoms in it—that is, disturb its functions in such a way as will cause discomfort. After all, our word disease only means discomfort. There are many conditions we now call disease, but this was the original etymology of it. Diseases can be cured by a changed attitude of mind, whenever they are due to the mind. A great many people make their own troubles. Hence all the religious healers who are so thick in our large cities. Nearly every large hotel in New York City—and this is even truer of Chicago—has some mode of religious healing that meets in some of its public rooms every Sunday. Many of them are quite absurd, but they use the blessed name of religion and get results of healing. This is what priests need to realize with regard to modern quackery in general. It is easy to make a mockery of faith by over-ready credulity as regards methods of healing. When Catholics are too easily credulous, people say: "No wonder they can believe so readily in their religious doctrines! See the foolish beliefs of all kinds that they accept!"

Persons who want good health should keep out of the hands of the quacks and the new-fangled healers, and the men who are following recent new discoveries in the treatment of disease. Priests should keep their people out of such hands just as far as they can, remembering that orthodoxy in religion and medicine go much more hand in hand than

is usually supposed. Novel healing methods encroach much oftener on religion than is usually thought, and religious feelings are often besmirched by them; health is abused and long life becomes out of the question. It is rather easy for most of us to persuade ourselves that we can judge of these matters for ourselves, and that we have been particularly favored in having some special new form of treatment brought to our attention before others are aware of it. Even physicians are often carried away by pretended scientific discoveries that are supposed to cure disease, but which after a while prove to be of no value for them. In the meantime great harm may be done by them. It is much better not to try to be at the head of the procession, because that wanders off into bypaths that prove to be blind passages and bring only disappointment to those who have been over-anxious. Long life comes to the middle-of-the-road people, who are not over-anxious and are not following after fads and frills in medicine.

# CHAPTER IX

## The Seminary and Young Priests' Health

The question of long life for priests depends a very great deal on the health they enjoy at the time when they enter the priesthood. As I have said elsewhere, insurance companies declare that anyone who is in insurable good health at the age of twenty-five, ought to live for some forty-two years on the average. As most priests are about this age when ordained, and are usually (especially in recent years) in insurable good health at ordination, their expectancy of life ought to follow the life insurance statistics. As we have seen, it does not. Some of this failure in the past to live out their lives was undoubtedly due to the conditions of health which obtained in the old-fashioned seminaries. There has been a very great change in this matter in recent years, though some who are rather well acquainted with seminary conditions at the present time are inclined to say that considerable improvement could still be made to the great benefit of the health of the seminarians in those younger years which mean so much for their subsequent health and strength.

I am not familiar enough with conditions to ex-

press a positive opinion. I know that, whenever I stop at a seminary (and there are half a dozen in this country at which I lecture occasionally and sometimes remain overnight), I have a very enjoyable time. I get excellent simple meals, good variety at table, and agreeable company that makes meal-time a pleasant interval. Of course, I realize that very probably the body of the seminarians do not always have such good food, and yet, as all the eating is done together, there can be no very great difference, and there is no doubt that now seminarians get good substantial food and an abundance of it. In the older days, unfortunately, such foreign customs as not having much to eat at breakfast or having a very light supper prevailed to the detriment of the health of students who had been accustomed to three rather substantial meals in the day. Habit has a great deal to do with the amount eaten, and also the distribution of this amount at the various meals; but growing young folks (and seminarians are usually in their period of growth all during the time that they are in the seminary) ought to have an abundance to eat. The hardest work we do in the world before maturity, is to grow, and we should be provided with the material.

How different is the feeling in this matter from what it used to be, can be readily understood from some of the special precautions and regulations which are now made for the care of students' health in the

various colleges. Dartmouth, for instance, has made a specialty of caring for the health of students, and the faculty has been very much impressed by the fact that under a proper medical regulation of health and eating the students are not only happier and less likely to indulge in all sorts of pranks that brought them under disciplinary measures, but they are also brighter and more successful at their books, and their normal development occurs with a great deal of satisfaction to themselves, the faculty, and their folks at home. Dartmouth considers that it has done nothing that means so much for education in recent years as this special attention to the health of students. Surely, seminaries engaged in educating and watching not only over the spiritual and mental but also the physical development of youthful candidates intended for the priesthood and the service of the Church, ought to be ready to do as much as Dartmouth in order to put their students in good health of mind and body and in the peace of spirit that so often comes as a result of care of health. In the absence of health, when individuals are thin and under-weight, there is a good deal of disturbance of mind, and especially scruples and dreads and fears of various kinds.

The first and greatest care at Dartmouth during the past three years has been the weight of the students on their entrance into the college, and its maintenance or increase during the time while there.

Weight is one of the most important indexes of health that we have. If you are about the proper weight for height, you are very probably healthy, unless there is some very special organic trouble. This is particularly true among younger people, not only those who are just about attaining their growth (that is between twenty and twenty-five), but also among those who are younger. It is surprising how much this index of health is neglected. Mothers who bring their children to the physician because they fear there is something the matter with them, will tell long stories about how tired the children are; how pale they are at times and then how flushed and how restless in their sleep, so that evidently they dream a great deal; how they pick their noses or have "jumpiness" of various kinds. Yet these mothers too often know nothing at all about their children's weight. The physician finds the weight for height and age of more significance with regard to health than any other index that we have. It is not surprising, then, that at Dartmouth this is the first thing to which special attention is paid.

Weight is not everything, but in the recent report on the student health program at Dartmouth made by Robert C. Strong in *The Educational Record* (which is the quarterly journal of the American Council on Education), he says: "Experience has proved that men who are under-weight have neither the nervous nor the physical reserve to withstand ex-

cessive strain, even though they may appear to be in the best of health." All of us who have had the opportunity to deal with neurotic patients know that a gain in weight often means a very great deal towards stabilizing nerve control. It would be very hard for me to tell how many people suffering from scruples or fears or dreads of various kinds have been very much improved and sometimes completely relieved of their trouble by having them gain in weight. This supplies them with reserve energy by which they can control themselves, and above all control their mind and will, much better than before. The cure seems entirely too simple for a great many people to accept it, but experience has shown that probably no single mode of treatment is so successful in lessening nervous symptoms of various kinds as that of bringing the patient up to normal weight for height and age. Hence, the initial step at Dartmouth is taken very properly with regard to the elimination of underweight.

Mr. Strong, in his report from Dartmouth, says that for students it has been found to be much better for them to be a little over-weight for their height and age than at all under-weight. His own expression is: "The fundamental principle upon which the nutrition work is based during the first year at Dartmouth is that for a person of any given height and age there is an optimum weight of from five to ten per cent above the average weight for such a class."

There is so much said about over-weight being dangerous in our day, because the insurance companies have found that among old people over-weight shortens life, that a great many people have come to think that it is much better to be somewhat underweight than over-weight. This is not true, however, in so far as the younger years are concerned. In them a little over-weight, provided it is not excessive, provides reserve energy and resistive vitality, and young persons in their growing period are much less likely to suffer from infections of various kinds if they are slightly above-weight rather than underweight. Under-weight distinctly lessens the immunity to infectious disease, and above all makes contagious disease to be severer than it would otherwise be, apparently because the thin body is not so capable of throwing off microbes and their toxins.

At Dartmouth they say: "Anybody who is seven per cent or more below the average for his height and age is not only at a disadvantage because of his inability to bear up under the physical and mental strain of college work and extra-curricular activities, but is also more susceptible to tuberculosis, diabetes and circulatory disorders than is the man in the average or optimum group." To explain some of these rather medical terms, it may be said that it has been well known for a long period that thin persons in their early years are much more likely to contract consumption than those who are stouter. That does

not mean that the stout may not contract the disease, but that not nearly so many of those who are overweight contract it as of those who are under-weight. The same thing is true with regard to the circulatory disorders, especially as represented by the heart. The first attacks of rheumatism usually occur during the growing period; indeed, they used to be confounded with "growing pains" (or called by that name), and supposed to be more or less normal during the growing period. Pains in the joints and muscles, however, are usually due to rheumatic arthritis, and that often produces serious results on the heart, causing the valves to crumple up and making it ever so much more difficult for the heart to do its work. The thin subjects of rheumatic arthritis—or acute rheumatism, as it is also called—are much more likely to suffer from a heart complication during the rheumatism than are the stouter ones. Of course, this is not true for the very stout ones, because they often have layers of fat around their heart which interfere with the heart's activity, and therefore may readily predispose it to valvular heart disease in connection with rheumatism because of the hampered action to which the heart is subjected by the presence of the fat. The severer cases of diabetes—those which are likely to be rapidly fatal—seem to come particularly in rather thin patients who have not been eating enough, and have somehow given their systems the habit of changing even the

proteid material of the muscles into sugar, and then allowing it to escape from the system through the kidneys by what is known as "glycosuria."

Keeping these things in mind, the endeavor at Dartmouth then—and I quote its report because it has done the best work in this line, and nothing less than the best should be placed before our seminaries as a suggestion—is to bring the men promptly up to weight if they are under-weight, and then teach them how to maintain their weight, though at the same time warning them about certain dangers that exist if they should allow their weight to become excessive. Over-weight tends to prevent exercise, and exercise is the most important factor for health that man has, not only in his younger years but also throughout his life.

Dartmouth begins its inquiry into the health of its students even before they have come to the college itself. During the Spring of the year when men are applying for admission to college, they are requested to fill out in their application blanks certain spaces which are left for their height, weight, and age. These lists are carefully gone over, and all the men who are ten per cent or more under-weight are notified of that fact, and are given brief instructions as to diet and health habits which will help them to increase their weight before entering in the Fall. The surprise is that this simple preliminary warning has proved sufficient to help a great many students to get

up to normal weight for height by the time they enter college. Just as soon as this question of health is put up to the growing youth as a personal matter that he must take care of for himself, and as soon as it is made clear to him that his weight means more than anything else, he at once begins to realize the necessity for regular eating of simple nutritious things and of regulating his life generally so that he may gain in weight. It does not need much health education for that; indeed, only a few directions as to what and how and when to eat are necessary.

When the students come up for matriculation, each member is weighed and measured, and the men who are seven per cent or more under-weight are put into a special class—not in so far as college studies are concerned, but in so far as their physical exercise is concerned. They are excused from gymnastic and other recreational activities, and a program is mapped out for them which is designed to make them gain in weight. First of all, a physical examination is made by the attending physician in order to locate, if possible, any physical defects which might prove a hindrance to gain in weight. Such cases are found to be comparatively few, but, after special provision has been made for them, the principal thing in the program is a weekly call at the office of the physician where they are weighed and given instructions for the coming week. In general, this program emphasizes the following of a few simple rules.

These are concerned with regular hours for meals and sleep, rest before meals, and suppers before going to bed at night.

There is no trouble about the regular meals in the seminary, and the rest before meals (at least in the Religious Orders) is secured by the examination of conscience and by certain religious duties that are likely to come shortly before meals. It is curiously interesting to learn that, in this as in so many other details, the rules of the old-fashioned Religious Orders are well calculated to foster physical health, though they were made for the encouragement of the spiritual life.

The report from Dartmouth shows that insistence on regular meals, simple food eaten in reasonable quantities, and a supper before going to bed, very soon brings about a gain in weight. Of the sixty-five freshmen who entered college last year, sixty-one proceeded to gain in weight almost from the beginning, and they have gained on the average nearly six pounds each. Only four either failed to gain or lost weight. Weight is not merely a putting on of flesh because of superabundant diet, but the ductless glands often need to be stimulated with a certain amount of over-nutrition for a prolonged period before the stimulus to real gain in weight will come from them. A few growing young folk need attention for several years to get up to weight and stay there. The health of the students is watched not only during

their freshmen year but during the subsequent years; their weight is taken at intervals, and any deviation from the normal is noted. This often enables the physician to give sound advice in the matter of proper eating, for young fellows are sometimes prone to get all sorts of curious notions with regard to what is and is not good for them to eat.

This is more particularly true of seminarians, for they seem to pick up impressions with regard to health and follow them, though there may be no good authority for them at all. It is not unusual, for instance, to find that young folks acquire an idea that they must not drink during their meals. As a matter of fact, a dry diet is a little harder to digest than one to which a reasonable quantity of fluid is added during the time it is eaten. Unchewed food must not be washed down by gulps of fluid, but the taking of fluid during meals is good for most people. Sometimes young folks acquire prejudices with regard to certain foods. Occasionally, for instance, they will be sure that they cannot digest hog meat of any kind, and above all that they cannot digest smoked hog meat; therefore, bacon and ham are excluded from their dietary. As a matter of fact, these are two of the most digestible meats that we have, and there must be some very good reason for not taking them before they are set down as indigestible in any individual case. When I was a medical student in Vienna, I was very much surprised to learn that

boiled ham was the first meat given to typhoid fever patients after their long abstention from meat during the fever; but I was much more surprised to find how well the patients digested it, and how much they liked it.

Sometimes students are inclined to think that they ought to take exercise just before their meals, and some of them will go through a series of gymnastics during the ten or fifteen minutes before they go to table. That has been found by recent investigations to discourage appetite, and it is much better to rest for a while just before meals. Young folks should not go immediately from very hard games to table. There ought to be an interval of ten or fifteen minutes. Tennis players, swimmers, golfers and the like usually take a bath after exercise (or at least a shower), and then after quietly rubbing down and sitting around for a while they go in to their meals. This is much more likely to be good for appetite than if they went straight from physical activity to table.

On the other hand, rest after eating is discouraged by all those who feel that nutrition and good digestion go together. Digestion is not likely to be so effective in the lying position as it is when sitting up or walking quietly around, though of course there should not be violent exercise immediately after meals. Sleeping, however, seems to make the stomach somewhat sluggish in its work, and often gives a bad taste in the mouth afterwards and a lack

of that internal feeling of satisfaction that comes with normal digestive processes.

As to the simple food necessary for gain in weight, they are not at all the expensive ones. Milk is undoubtedly the most important to put weight on growing young folk. Those who are under-weight should be asked to drink three or four or even more glasses of milk in the day, and should be supplied with milk between meals. A quart of milk is not too much for them to take, and in connection with regular eating it will very soon put weight on them. Even those who are not supposed to be particularly prone to carry weight because of hereditary or personal tendencies, will be benefited. Milk should be given at night with the supper which is suggested, and which need not consist of more than crackers and milk. Sometimes young folks will eat simple sweet crackers (not the more elaborate kind, but those that are bought in the grocery stores), and thus eat more heartily than would be the case if only ordinary crackers were provided. Sometimes salted crackers tempt appetite much better than sweet crackers, and of course the crackers ought to be crisp as a rule because that makes them ever so much more tasty. I have known young folks begin promptly to gain in weight just as the result of taking a supper at night before going to bed, while eating their meals normally as before.

Among the other things (besides milk) that are very nutritious and yet are very inexpensive, are rice,

peas and beans—particularly beans. There is no more nutrition in fresh peas in the spring time than there is in dried peas or beans; and, if these are prepared in the shape of soups or otherwise so as to be tasty, they will prove very valuable in increasing nutrition. The mode of preparation is the principal thing. Dried peas and beans can be prepared so as to be almost inedible; but the same peas and beans can be prepared so as to be very satisfying dishes. Rice in the shape of rice pudding with some milk in it is an extremely valuable dish. Of course, the cereals generally are valuable—oatmeal, cream of wheat and all the other cooked cereals. The dry cereals are not of very much value—that is, those that are sold in packages—unless they are eaten with cream. It is the cream that gives the value to them. I can readily understand that in a seminary it would be quite impossible to furnish cream for all the students, though good rich milk (when the whole milk is served as is so often the case when the seminary owns its own cows) will make a very valuable dish for those who are thin.

There is an old Irish proverb that a dinner is never complete unless some things are left behind on the dishes. This ought to be a reasonably good working rule in a seminary. Something of nearly everything that has been served ought to be left on the dishes, or very probably the students are not getting enough to eat. Such things as bread and potatoes

and the ordinary vegetables ought not to be limited, and the students ought to be given an opportunity to have a second helping. Even with regard to desserts, this should also be the rule. For instance, if little cakes are served, there should not be just one or perhaps two for each student at the table, but there ought to be enough so that, if some of the students want to take one or two more, they are able to do so. This is particularly true for those underweight. It will be said that sometimes they do not eat cakes at the table but take them away with them; but, if they do, so much the better. The effort is to have them gain in weight, because that will make them more healthy in body and also more vigorous in mind, and they will be better satisfied with their surroundings. I know that a good deal of the students' discontent with the food served is fictitious, but they should be given an opportunity to satisfy themselves pretty well.

Once, at the request of his parents, I saw a seminarian in a distant college where I was going to lecture. His parents feared that he was not well, but I found him in excellent health, and learned that he had gained a good deal in weight. When I inquired how he was getting on, he very frankly confessed that he was getting on very well. When I mentioned that his mother particularly had been rather anxious about him, he said: "Oh, yes, I know; and, when I get home at Christmas time, won't father have a

joke on me!' He added: "When I came here, I wrote a letter to mother nearly every day, telling her how bad the food was, and how hard it was to get along, and how hungry I used to be. I went on with that for a month, and then I began to notice that my clothes felt tight. I weighed myself, and found that I had gained five pounds. Then I stopped writing the letters, but I have gone right on gaining in weight. I have gained over ten pounds since September [this was toward the end of November], and, if I keep on, I suppose it will be twelve pounds at least by Christmas. When father sees me, he will have a great laugh at me."

Very often seminarians thrive on the food that they receive, especially because they get out in the air much more than they did in the city, and their nutrition is definitely improved. All the time, they may not enjoy the food very much in the sense that it is not as dainty as they were accustomed to at home. But the best sign that it is doing them good is the fact that they are constantly increasing in weight.

Here then is a preliminary period during which those who are about to enter the priesthood may be brought to good health and to such regular habits of life and eating as will enable them to live out their lives to the normal expectancy of life. Undoubtedly, the old-fashioned seminaries only too frequently gave them a bad start. The present institutions are doing ever so much better, though probably there could be

very definite improvement without adding much to the expense either for food or labor in preparing it. Fortunately, in many cases the Sisters have the preparation of the food, and then it can be depended on as a rule to be tasty and properly served. In so far as appetite is concerned, a good deal depends on the serving of food. Table cloths should be neat and clean, china should be attractive, meats and vegetables should be served without any splashing of gravy around or hanging ends of vegetables over the edges of dishes. The looks of things have a good deal to do with appetite. Boys who are careless and splashy and spotty about their place at table should be taken in hand and made to appreciate that they must live so as to fit in with the community life, and therefore must consider the appearance of things for the sake of others.

Since the secular colleges are engaged in taking such care of the health of their students, seminaries should do the same thing. They need the aid of a good sensible physician who is in touch with modern developments as to nutrition and recent physiological research, especially with regard to the health value of raw vegetables and other vitamin-carrying food material. As a rule, their regular physician will be quite capable of suggesting the conditions that should be put into practice.

It may be said that the seminary is rather a place for the cultivation of the spirit of self-denial than of

bodily health, but it is perfectly possible to have the two go together. Those who are up to weight and a little above it, may be permitted or even encouraged to deny themselves in various physical ways, though as a rule in the growing years mortification of the spirit rather than the body should be practised. Those who are as yet below weight should be fed up properly, and should be asked to do their mortifications in other ways than by denying themselves at table. After all, this is a recognized principle in the spiritual life, and has always been very well understood by those who have the training of young men for the priesthood in their hands. It is not luxury nor even over-feeding of simple foodstuffs that is counselled, but the making of young levites as healthy as possible, both for their soul's sake and that of their body, so that their years of service of the Lord may be long in the land.

# CHAPTER X

## Conclusion

Perhaps some of our readers may think that we have devoted a great deal of time and spilt a good deal of ink over this question of priests and long life, and yet seem to have reached only the conclusion that, if you have good heredity and take reasonably good care of your health, you will live long—barring accidents. That is quite true in the sense that there is no panacea that will assure long life. The most certain thing in the world is death, but the most uncertain thing in the world is the time of it. Life may be prolonged by the observance of certain apparently rather unimportant rules, which are, however, extremely significant for health.

Health is a matter of little things. The greatest discovery ever made with regard to health—and, above all, as to the prevention of disease and the preservation of health—was that of Pasteur when he showed us the real meaning of microbes. They are little things that we can see only with the higher powers of the microscope; as a matter of fact, some of them cannot be seen even with the highest powers of our microscope, and some of them will actually

never be seen because they are beyond the highest theoretical powers of our microscope, but they are important almost in direct ratio to their lack of size. We shall not be surprised, then, to find that, in what concerns habits of life tending to longevity, little things are of prime importance.

Long life and health are dependent on little things, but these are in themselves extremely important. We have some 25,000 priests in this country. Suppose that, by the exercise of reasonable care and the application of proper knowledge of modern sanitation and hygiene, priests should be enabled to add five years to their lives on the average! So far from being an unattainable ideal, it is a very possible achievement, for physicians have lengthened their lives on the average by more than three years in the last twenty-five years. If medical direction could in any way add five years to the lives of 25,000 priests, that would represent well above 100,000 years of added service for the divine ministry. Of course, some of this lengthening of life would run into some additional invalidism, and some of the men who reached seventy and beyond as the result of prolonged life would not be as active as men of sixty; but the great majority of them would be valuable workers in the vineyard, and, almost without exception, they would add greatly to the amount of work that they were able to do in the priesthood as the result of these additional years.

The Provincial of an important religious Order once told me that he had tried to make an arrangement with the Lord to have Him take his men in chronological order, though he said he would be satisfied if the Lord would only consult him as to who should be the next to go, for he had some, even of those who were not so old, who could be much better spared than others. He assured me, however, that the Lord had gone right on in His own way, taking the members of the Order quite regardless of their years in many cases, though sometimes this good Provincial thought that some of the men had really gone before their time—or at least before the time when the Lord would have taken them in due course—because they had not taken proper care of themselves. There is an old medieval legend with regard to a good man presenting himself at heaven's gates and being told that they had no room for him there because his name was not on the list. When they looked the matter up, however, they found that he was due to come a little bit later, but that he had consulted a quack doctor and taken his advice, and, as a result, was getting to heaven before his time. This may be a desirable advantage once one is over there, but from the standpoint of earth and the work to be done before eternity comes it is not. That was why the doctor rather shocked the bishop in the well-known story. The bishop had suggested more than once that a certain physician, who was very careless

about his religious duties but yet very popular among Catholics because of his professional success, ought not to be consulted by his priests because his example was not good for the people. When the bishop fell ill himself, however, and had tried two or three other physicians in vain, he at last turned to this physician and said to him: "You know, doctor, I am building this cathedral and I want to live to finish it. I have come to you, then, in order that you may be sure to keep me alive for the work." And the doctor, who of course had heard of some of the things the good bishop had said about him (friends having been very careful to carry the episcopal expressions to him without any loss of significance on the way), said: "Your lordship, if you will keep me out of hell, I'll keep you out of heaven for a while anyhow, for I suppose that that is what you want."

Anything that I have been able to say with regard to health will only serve to keep good priests out of heaven for a while. Of course, that will enable them to gain more merit and make heaven more worth while when they get there. It is all a matter of little things, however, and those little things must be done every day. After a while you get the habit of them, and they get done of themselves without your thinking. You must take regular exercise; you must be sure that you have plenty of air both inside

and outside the house; you must exercise care—but not too much care—as to the eating of food and as to the taking of enough water. You must watch your weight, and let it neither go up nor down after you have reached the proper weight for height, slight variations according to the season making no difference. You must rest enough and at the proper time in the twenty-four hours, but not too much. Rest is a dangerous remedy, and you may easily get the habit of it and think that you require more than you really do. You must avoid medicines except under proper direction, and let medicine alone just as far as possible. The wisest doctor, they say, is the one who gives the least medicine, and that certainly would be true if a great physician like Osler were taken as the evidence for it. The wisest man is the one who takes the least medicine, and only when it is absolutely necessary and when prescribed by someone who knows his business well.

From day to day many of these things seem but trifles, but then Michelangelo once said: "Trifles make perfection." Certain trifles make health, and health leads to long life. Michelangelo added that, while trifles make perfection, "perfection is no trifle." Of course, good health is the most precious possession in the world, and without it life means very little. But, then, do not forget that there is no definition for health that would satisfy physicians, and be content

to have that average sense of wellbeing which mankind has agreed on calling good health. Trifles may make it or unmake it, but observance of these trifles makes life really worth living.

It is very probable that some of my colleagues in the medical profession would be inclined to think and perhaps to state rather emphatically that I did not have enough confidence in medicines and medicine, but I have just been reading the Life of Dr. Osler once more, and have been confirmed in all of my ideas with regard to habits in life meaning much more for health and long life than anything that we can do to make up for unfortunate lapses from health because of failure to observe the laws of nature. What we need much more than medical treatment to keep us well is health engineering—that is, such management of our habits of life as will maintain health. Of course, the man who is handicapped by a crippled heart as the result of an attack of true rheumatism (that is, acute arthritis, with redness, swelling and temperature as well as pain, for pain alone without the other symptoms is not rheumatic), must not consider that all he has to do is to follow the rules for maintaining health, because he has to get back into good health as a beginning of his life course. A man who has had pulmonary tuberculosis when he was younger, will have to manage his activities with an eye to that fact all his life. If he is a sufferer from diabetes or Bright's Disease, he re-

quires special attention all the time, and must not take directions laid down for healthy people as meant for him.

In a word, this present work is not meant to restore good health, but to help in the maintenance of it. It will not do so if its directions are taken so seriously as to make people worry about them. Long life depends on placidity and the taking of things easily, and of course the lack of worry. Worry, which comes from the old Saxon word *wurgan* (which meant in the old days to get by the throat as dogs "worry" sheep), will shorten life sooner than almost anything else. Those who suffer from it know the sensation that "gets them by the throat," and "takes the starch out of them," as we say—that is, makes them feel limp. Some of these old expressions are very enlightening when we look into their etymology. If life is lived with equanimity (Osler's favorite word), there is a good chance for a great many whose lives might otherwise be shortened to live out their expectancy of life and accomplish an immense amount of good that might not otherwise be possible. This is the aim of this series of articles which are the result of the inquiry of the Editor of *The Homiletic and Pastoral Review*. If the book should serve to add even a single year of life on the average to a tithe of the priests of this country, the author would deem it a more than ample reward.

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Priests and Long Life.

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